GV-D200/D200E/D800/D800E

SERVICE MANUAL

Self Diagnosis Supported model

Ver 1.0 2000. 09

Digital8

InfoLITHIUM™ L SERIES

VIDEO WALKMAN

US Model
Canadian Model
GV-D200/D800

AEP Model
UK Model
E Model
GV-D200E/D800E

Photo : GV-D800E

B MECHANISM

NTSC MODEL : GV-D200/D800
PAL MODEL : GV-D200E/D800E

Function difference table

Model / Function	GV-D200/200E	GV-D800/D800E
LCD	—	4.0 inches

For MECHANISM ADJUSTMENT, refer to the “8mm Video MECHANICAL ADJUSTMENT MANUAL Ⅶ ” (9-973-801-11).

SPECIFICATIONS

VCR

System

Video recording system
2 rotary heads
Helical scanning system

Audio recording system
Rotary heads, PCM system
Quantization: 12 bits (Fs 32 kHz, stereo 1, stereo 2), 16 bits (Fs 48 kHz, stereo)

Video signal
GV-D200 / D800:
NTSC color, EIA standards
GV-D200E / D800E:
PAL colour, CCIR standards

Recommended cassette
Hi8 / Digital8 video cassette

Recording/playback time (GV-D200/D800: using 120 min. Hi8 video cassette) (GV-D200E/D800E: using 90 min. Hi8 (PAL) video cassette)
SP mode: 1 hour
LP mode: 1 hour and 30 minutes

Fastforward/rewind time (GV-D200/D800: using 120 min. Hi8 video cassette) (GV-D200E/D800E: using 90 min. Hi8 (PAL) video cassette)
Approx. 5 minutes and 15 seconds

Input/output connectors

S video input
4-pin mini DIN
Luminance signal: 1 Vp-p, 75 ohms, unbalanced
GV-D200 / D800:
Chrominance signal: 0.286 Vp-p
GV-D200E / D800E:
Chrominance signal: 0.3 Vp-p, 75 ohms, unbalanced

S video output
4-pin mini DIN
Luminance signal: 1 Vp-p, 75 ohms, unbalanced
GV-D200 / D800:
Chrominance signal: 0.286 Vp-p
GV-D200E / D800E:
Chrominance signal: 0.3 Vp-p, 75 ohms, unbalanced

Audio/Video input
AV MINIJACK
Video: 1 Vp-p, 75 ohms, unbalanced, sync negative
Audio: 327 mV, input impedance more than 47 kiloohms

Video output
Phono jack, 1 Vp-p, 75 ohms, unbalanced, sync negative

Audio output
Phono jacks (2) 327 mV, output impedance less than 1 kiloohm

RFU DC OUT
Special minijack DC 5 V

DV input/output
4-pin connector

Headphone jack
Stereo minijack (ø 3.5 mm)

LANC jack
Stereo mini-minijack (ø 2.5 mm)

LCD screen (GV-D800/D800E)

Picture
4.0 type
80.6 × 60.5 mm (3 1 / 4 × 2 1 / 2 in.)

Total dot number
123,200 (560 × 220)

General

Power requirements
7.2 V (battery pack)
8.4 V (AC power adaptor)

Average power consumption (when using the battery pack)
GV-D800 / D800E only
During playback using LCD
4.9 W
During playing back when you close the LCD panel
3.0 W

Operating temperature
0 °C to 40 °C (32 °F to 104 °F)

Storage temperature
–20 °C to +60 °C (–4 °F to +140 °F)

Dimensions (Approx.)
GV-D200 / D200E:
148 × 50 × 135 mm
(5 7 / 8 × 2 × 5 3 / 8 in.)
GV-D800 / D800E:
148 × 65 × 135 mm
(5 7 / 8 × 2 5 / 8 × 5 3 / 8 in.) (w / h / d)

Mass (approx.)
GV-D200 / D200E:
660 g (1 lb 7 oz)
GV-D800 / D800E:
930 g (2 lb)
excluding the battery pack and cassette

Supplied accessories
See page 2.

AC power adaptor

Power requirements
100 - 240 V AC, 50 / 60 Hz

Power consumption
23 W

Output voltage
DC OUT: 8.4 V, 1.5 A in the operating mode

Operating temperature
0 °C to 40 °C (32 °F to 104 °F)

Storage temperature
–20 °C to +60 °C (–4 °F to +140 °F)

— Continued on next page —

DIGITAL VIDEO CASSETTE RECORDER

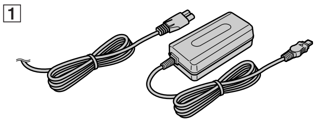
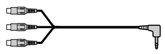
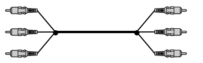
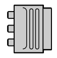
SONY®

Dimensions (approx.)
125 × 39 × 62 mm
(5 × 1 9/16 × 2 1/2 in.) (w / h / d)
excluding projecting parts
Mass (approx.)
280 g (9.8 oz) excluding power cord
Cord length (approx.)
Power cord: 2 m (6.6 feet)
Connecting cord: 1.6 m (5.2 feet)

Design and specifications are subject
to change without notice.

• SUPPLIED ACCESSORIES

Make sure that the following accessories are supplied with your VCR.

1 	2 
3 	4 

1 **AC-L10A/L10B/L10C AC power adaptor** (1), **Mains lead** (1)

2 **A/V converting cable** (1)

3 **A/V connecting cable** (1)

4 **21-pin adaptor** (1)
GV-D200E / D800E only

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈSES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPÉMENTS PUBLIÉS PAR SONY.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer.

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
4. Look for parts which, through functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
5. Check the B+ voltage to see it is at the values specified.
6. Flexible Circuit Board Repairing
   - Keep the temperature of the soldering iron around 270˚C during repairing.
   - Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
   - Be careful not to apply force on the conductor when soldering or unsoldering.

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SERVICE NOTE

1. POWER SUPPLY DURING REPAIRS

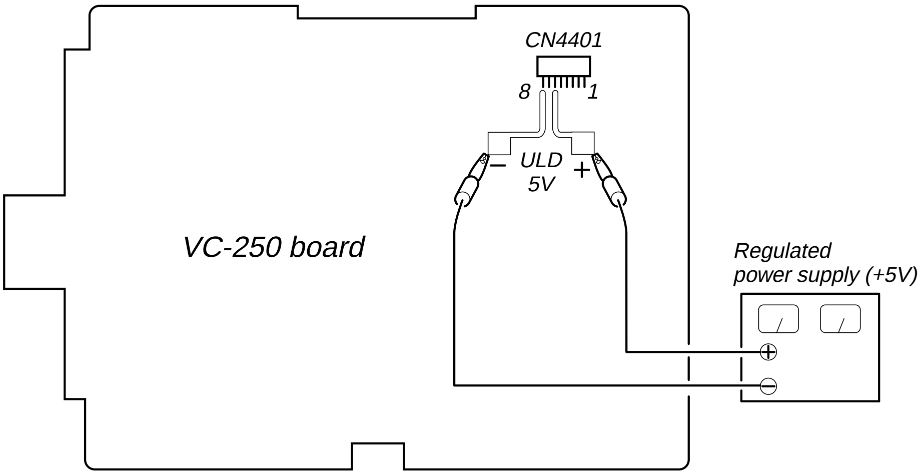
In this unit, about 10 seconds after power is supplied (8.4V) to the battery terminal using the service power code (J-6082-223-A), the power is shut off so that the unit cannot operate.
These following two methods are available to prevent this. Take note of which to use during repairs.

Method 1:
Connect the adjustment remote commander RM-95 (J-6082-053-B) to the LANC jack, and set the HOLD switch to the “ADJ” side.

Method 2:
Use the DC IN terminal. (Use the AC power adaptor. (AC-L10, AC-VQ800 etc.))

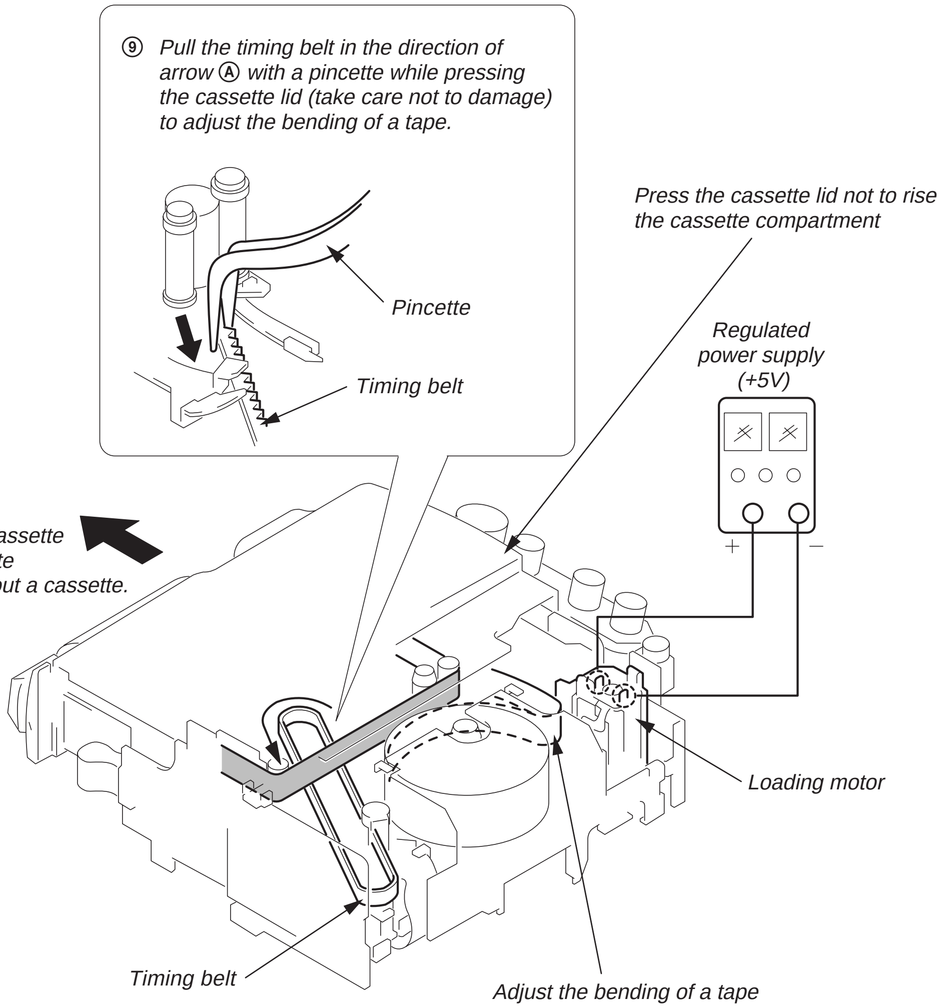
2. TO TAKE OUT A CASSETTE WHEN NOT EJECT (FORCE EJECT) (1)

① Remove the power supply (Battery or AC power adaptor).
② Push the EJECT switch and open the cassette lid.
③ Refer to 2-2. to remove the cabinet (lid) assembly.
④ Refer to 2-2. to remove the cabinet (bottom) assembly.
⑤ Add 5V from the regulated power supply between Pin ⑤, ⑥ of CN4401 (ULD5V +) and Pin ⑦, ⑧ of CN4401 (ULD5V –), and unload the cassette.



3. TO TAKE OUT A CASSETTE WHEN NOT EJECT (FORCE EJECT) (2) (TO TAKE OUT A CASSETTE WITHOUT HURTING THE TAPE)

① Disconnect the power supply (Battery or AC adaptor)
② Refer to 2-2. to remove the cabinet (lid) assembly.
③ Refer to 2-2. to remove the cabinet (bottom) assembly.
④ Refer to 2-1. to remove the Cassette (lid) assembly.
⑤ Refer to 2-6 to 2-8. to remove the LCD block (GV-D800/D800E only) and the cabinet (upper) assembly.
⑥ Remove the FU-145 board.
⑦ Refer to 2-9. to remove the lid frame assembly.
⑧ Add +5V from the regulated power supply and unload with a pressing the cassette lid.


Pincette
Timing belt
Press the cassette lid not to rise the cassette compartment
Regulated power supply (+5V)
+
−
Loading motor
Timing belt
Adjust the bending of a tape

⑨ Pull the timing belt in the direction of arrow Ⓐ with a pincette while pressing the cassette lid (take care not to damage) to adjust the bending of a tape.

⑩ Let go your hold the cassette lid and rise the cassette compartment to take out a cassette.

SELF-DIAGNOSIS FUNCTION

1. SELF-DIAGNOSIS FUNCTION

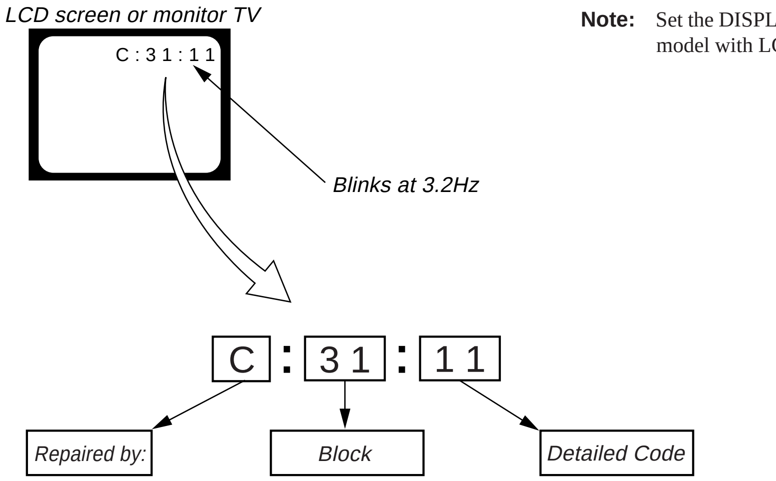
When problems occur while the unit is operating, the self-diagnosis function starts working, and displays on the LCD screen or monitor TV (Note) what to do. This function consists of two display; self-diagnosis display and service mode display.

Details of the self-diagnosis functions are provided in the Instruction manual.

2. SELF-DIAGNOSIS DISPLAY

When problems occur while the unit is operating, the counter of the viewfinder shows a 4-digit display consisting of an alphabet and numbers, which blinks at 3.2 Hz. This 5-character display indicates the “repaired by:”, “block” in which the problem occurred, and “detailed code” of the problem.

Note: Set the DISPLAY in the menu system to V-OUT/LCD only for the model with LCD screen, and press the DISPLAY button.



C : Corrected by customer
H : Corrected by dealer
E : Corrected by service engineer

Indicates the appropriate step to be taken.
E.g.
31 ....Reload the tape.
32 ....Turn on power again.

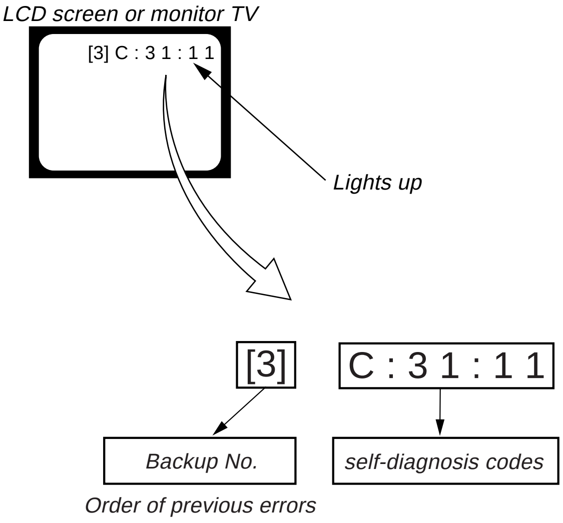
Refer to page 9.
Self-diagnosis Code Table.

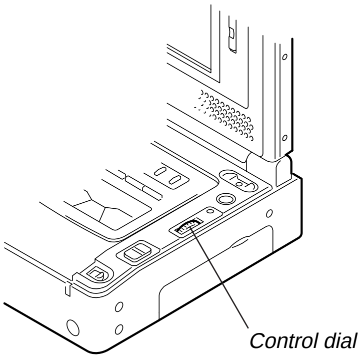
3. SERVICE MODE DISPLAY

The service mode display shows up to six self-diagnosis codes shown in the past.

3-1. Display Method

While pressing the “STOP” key, set the POWER switch from OFF to ON, and continue pressing the “STOP” key for 10 seconds continuously. The service mode will be displayed, and the counter will show the backup No. and the 5-character self-diagnosis codes.





3-2. Switching of Backup No.

By rotating the control dial, past self-diagnosis codes will be shown in order. The backup No. in the [] indicates the order in which the problem occurred. (If the number of problems which occurred is less than 6, only the number of problems which occurred will be shown.)

[1] : Occurred first time
[2] : Occurred second time
[3] : Occurred third time
[4] : Occurred fourth time
[5] : Occurred fifth time
[6] : Occurred the last time

3-3. End of Display

Turning OFF the power supply will end the service mode display.

Note: The “self-diagnosis display” data will be backed up by the coin-type lithium battery of FP-571 flexible board. When this coin-type lithium battery is removed, the “self-diagnosis display” data will be lost by initialization.

4. SELF-DIAGNOSIS CODE TABLE

Self-diagnosis Code				
Repaired by:	**Block Function**	**Detailed Code**	**Symptom/State**	**Correction**
C	0 4	0 0	Non-standard battery is used.	Use the info LITHIUM battery.
C	2 1	0 0	Condensation.	Remove the cassette, and insert it again after one hour.
C	2 2	0 0	Video head is dirty.	Clean with the optional cleaning cassette.
C	3 1	1 0	LOAD direction. Loading does not complete within specified time	Load the tape again, and perform operations from the beginning.
C	3 1	1 1	UNLOAD direction. Loading does not complete within specified time	Load the tape again, and perform operations from the beginning.
C	3 1	2 0	T reel side tape slacking when unloading.	Load the tape again, and perform operations from the beginning.
C	3 1	2 1	Winding S reel fault when counting the rest of tape.	Load the tape again, and perform operations from the beginning.
C	3 1	2 2	T reel fault.	Load the tape again, and perform operations from the beginning.
C	3 1	2 3	S reel fault.	Load the tape again, and perform operations from the beginning.
C	3 1	2 4	T reel fault.	Load the tape again, and perform operations from the beginning.
C	3 1	3 0	FG fault when starting capstan.	Load the tape again, and perform operations from the beginning.
C	3 1	4 0	FG fault when starting drum.	Load the tape again, and perform operations from the beginning.
C	3 1	4 2	FG fault during normal drum operations.	Load the tape again, and perform operations from the beginning.
C	3 1	1 0	LOAD direction loading motor time-out.	Remove the battery or power cable, connect, and perform operations from the beginning.
C	3 1	1 1	UNLOAD direction loading motor time-out.	Remove the battery or power cable, connect, and perform operations from the beginning.
C	3 2	2 0	T reel side tape slacking when unloading.	Remove the battery or power cable, connect, and perform operations from the beginning.
C	3 2	2 1	Winding S reel fault when counting the rest of tape.	Remove the battery or power cable, connect, and perform operations from the beginning.
C	3 2	2 2	T reel fault.	Remove the battery or power cable, connect, and perform operations from the beginning.
C	3 2	2 3	S reel fault.	Remove the battery or power cable, connect, and perform operations from the beginning.
C	3 2	2 4	T reel fault.	Remove the battery or power cable, connect, and perform operations from the beginning.
C	3 2	3 0	FG fault when starting capstan.	Remove the battery or power cable, connect, and perform operations from the beginning.
C	3 2	4 0	FG fault when starting drum	Remove the battery or power cable, connect, and perform operations from the beginning.
C	3 2	4 2	FG fault during normal drum operations	Remove the battery or power cable, connect, and perform operations from the beginning.

SECTION 1
GENERAL

This section is extracted from instruction manual. (GV-D800E model)

— Getting started —

Using this manual

As you read through this manual, buttons and settings on your VCR are shown in capital letters.
e.g. Set the POWER switch to ON.
When you carry out an operation, you can hear a beep sound to indicate that the operation is being carried out.

Before using your VCR

With your VCR, you can use Hi8 **Hi8**/Digital8 **D8** video cassettes. Your VCR records and plays back pictures in the Digital8 **D8** system. Also, your VCR plays back tapes recorded in the Hi8 **Hi8**/standard 8 **8** (analogue) system. However, you cannot use the functions in "Advanced Operations" on page 27 to 45 for playback in the Hi8 **Hi8**/standard 8 **8** system. To enable smooth transition, we recommend that you do not mix pictures recorded in Hi8 **Hi8**/standard 8 **8** with the Digital8 **D8** system on a tape.

Note on TV colour systems

TV colour systems differ from country to country. To view your recordings on a TV, you need a PAL system-based TV.

Copyright precautions

Television programmes, films, video tapes, and other materials may be copyrighted. Unauthorized recording of such materials may be contrary to the provision of the copyright laws.

— Подготовка к эксплуатации —

Использование данного руководства

При чтении данного руководства учитывайте, что кнопки и установки на видеомагнитофоне показаны заглавными буквами.
Например. Установите переключатель POWER в положение ON.
При выполнении операции на видеомагнитофоне Вы сможете услышать зуммерный сигнал, подтверждающий выполнение операции.

Перед первым использованием видеомагнитофона

Этот видеомагнитофон используется с видеокассетами Hi8 **Hi8**/Digital8 **D8**. Он выполняет запись и воспроизведение изображений в системе Digital8 **D8**. Кроме того, видеомагнитофон может воспроизводить кассеты, записанные в (аналоговой) системе Hi8 **Hi8**/standard 8 **8**. Однако функции, описанные в разделе "Усовершенствованные операции" на стр. с 27 по 45, нельзя использовать для воспроизведения в системе Hi8 **Hi8**/standard 8 **8**. Для обеспечения плавного перехода на одной кассете рекомендуется не записывать изображения в различных системах - Hi8 **Hi8**/standard 8 **8** и Digital8 **D8**.

Системы цветного телевидения

Системы цветного телевидения отличаются в зависимости от страны. Для просмотра Ваших записей на экране телевизора необходимо использовать телевизор на базе системы PAL.

Предостережение об авторском праве

Телевизионные программы, кинофильмы, видеоленты и другие материалы могут быть защищены авторским правом.
Нелицензированная запись таких материалов может противоречить положениям закона об авторском праве.

Using this manual

Precautions on VCR care

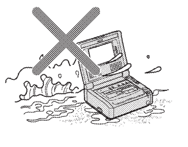
- **The LCD screen is manufactured using high-precision technology. However, there may be some tiny black points and/or bright points (red, blue, green or white) that constantly appear on the LCD screen. These points occur normally in the manufacturing process and do not affect the recorded picture in any way. Effective ratio of pixels and/or screen are 99.99% or more.**
- Do not let your VCR get wet. Keep your VCR away from rain and sea water. Letting your VCR get wet may cause your VCR to malfunction. Sometimes this malfunction cannot be repaired **[a]**.
- Never leave your VCR exposed to temperatures above 60°C (140°F), such as in a car parked in the sun or under direct sunlight **[b]**.
- Do not place your VCR so as to point the LCD screen toward the sun. The inside of the LCD screen may be damaged **[c]**.

Использование данного руководства

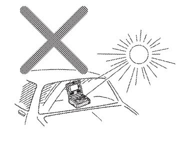
Меры предосторожности при уходе за видеомагнитофоном

- **Экран ЖКД изготовлен с помощью высокоточной технологии. Однако на экране ЖКД могут постоянно появляться черные или яркие точки (красные, синие, зеленые или белые). Появление этих точек обычно связано с производственным процессом, и они абсолютно не влияют на записываемое изображение. Свыше 99,99% экрана предназначено для эффективного использования.**
- Не допускайте, чтобы видеомагнитофон становился влажным. Предохраняйте видеомагнитофон от дождя и морской воды. Если Вы намочите видеомагнитофон, то это может привести к неисправности аппарата. Иногда неисправность устранить невозможно **[a]**.
- Никогда не оставляйте видеомагнитофон в местах, где температура поднимается выше 60°C (140°F), например, в автомобиле, припаркованном в солнечном месте, или под прямым солнечным светом **[b]**.
- Не допускайте попадания прямых солнечных лучей на экран ЖКД. Иначе могут возникнуть повреждения внутреннего устройства экрана ЖКД **[c]**.

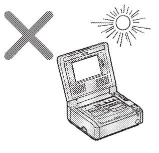
[a]



[b]



[c]



Contents of the recording cannot be compensated if recording or playback is not made due to a malfunction of the VCR, video tape, etc.

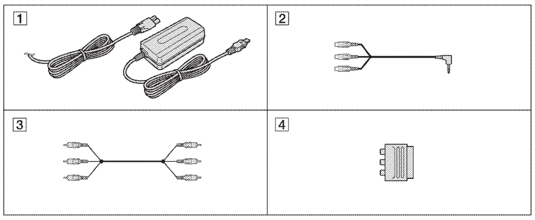
Содержимое записанного материала невозможно восстановить, если запись или воспроизведение не получились по причине неисправности видеомагнитофона, видеоленты и т.д.

Checking supplied accessories

Make sure that the following accessories are supplied with your VCR.

Проверка прилагаемых принадлежностей

Убедитесь, что следующие принадлежности входят в комплект этого видеомагнитофона.



1 **AC-L10A/L10B/L10C AC power adaptor** (1), **Mains lead** (1) (p. 8, 10)

2 **A/V converting cable** (1) (p. 23, 62)

3 **A/V connecting cable** (1) (p. 19, 23, 46, 62)

4 **21-pin adaptor** (1) (p. 20)

1 **Сетевой адаптер переменного тока AC-L10A/L10B/L10C** (1), **провод электропитания** (1) (стр. 8, 10)

2 **Преобразовательный кабель аудио/видео** (1) (стр. 23, 62)

3 **Соединительный кабель аудио/видео** (1) (стр. 19, 23, 46, 62)

4 **21-штырьковый адаптер** (1) (стр. 20)

Step 1 Preparing the power supply

Connecting to the mains

When you use your VCR for an extended period, we recommend that you power it from the mains using the AC power adaptor.

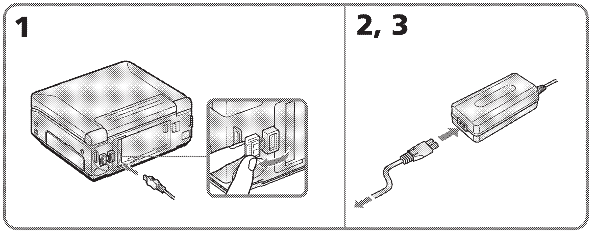
(1) Open the DC IN jack cover and connect the AC power adaptor to the DC IN jack on your VCR with the plug's ▲ mark facing right.
(2) Connect the mains lead to the AC power adaptor.
(3) Connect the mains lead to the mains.

Пункт 1 Подготовка источника питания

Подключение к сетевой розетке

При длительной эксплуатации видеомагнитофона рекомендуется использовать питание от электрической сети с помощью сетевого адаптера переменного тока.

(1) Откройте крышку гнезда DC IN и подсоедините сетевой адаптер переменного тока к гнезду DC IN, так чтобы метка ▲ на штекере была направлена вправо.
(2) Подсоедините провод электропитания к адаптеру переменного тока.
(3) Подсоедините сетевой шнур к электрической сети.



PRECAUTION
The set is not disconnected from the AC power source (the mains) as long as it is connected to the mains, even if the set itself has been turned off.

Notes
- The AC power adaptor can supply power even if the battery pack (not supplied) is attached to your VCR.
- The DC IN jack has "source priority." This means that the battery pack (not supplied) cannot supply any power if the mains lead is connected to the DC IN jack, even when the mains lead is not plugged into the mains.
- Keep the AC power adaptor away from your VCR if the picture is disturbed.

When you use your VCR outdoors
Use the battery pack (not supplied) (p. 9)

Using a car battery
Use the Sony DC Adaptor/Charger (not supplied).

ПРЕДОСТЕРЕЖЕНИЕ
Аппарат не отключается от источника питания переменного тока, пока он подсоединен к электрической сети, даже если сам аппарат выключен.

Примечания
- Питание от сетевого адаптера переменного тока может подаваться даже в случае, если батарейный блок (не входит в комплект) прикреплен к Вашему видеомагнитофону.
- Гнездо DC IN обладает "приоритетом источника". Это означает, что питание от батарейного блока (не входит в комплект) не подается, пока провод электропитания подсоединен к гнезду DC IN, даже если провод электропитания не включен в сетевую розетку.
- Если изображение искажается, отодвиньте сетевой адаптер переменного тока подальше от видеомагнитофона.

При использовании видеомагнитофона вне помещения
Используйте батарейный блок (не входит в комплект) (стр. 9)

Использование автомобильного аккумулятора
Используйте адаптер/зарядное устройство постоянного тока Sony (не входит в комплект).

Step 1 Preparing the power supply

Using with a battery pack (not supplied)

Install the battery pack to use your VCR outdoors.
You VCR operates only with the "InfoLITHIUM" battery pack (L series).

Installing the battery pack

Press and slide the battery pack in the direction of the arrow.

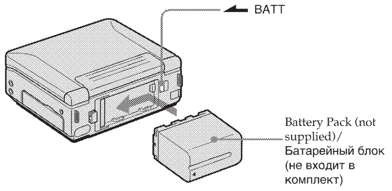
Пункт 1 Подготовка источника питания

Использование батарейного блока (не входит в комплект)

Установите батарейный блок, чтобы использовать видеомагнитофон вне помещения. Ваш видеомагнитофон работает только с батарейным блоком "InfoLITHIUM" (серии L).

Установка батарейного блока

Нажмите на батарейный блок и сдвиньте его в направлении стрелки.


BATT
Battery Pack (not supplied)/
Батарейный блок (не входит в комплект)

To remove the battery pack

While pressing ◀ BATT, slide the battery pack to the right.

After installing the battery pack
Do not carry your VCR by holding the battery pack. If you do so, the battery pack may slide off and cause damage to your VCR.

Remaining battery time indicator
When you use an InfoLITHIUM battery pack, the remaining battery time is displayed on the LCD screen. It may not be displayed properly, however, depending on the conditions and circumstances of use. The message appears when the battery is dead. When you close the LCD panel and open it again, it takes about 1 minute for the correct remaining battery time to be displayed.

Для снятия батарейного блока

Нажимая на кнопку ◀ BATT, сдвиньте батарейный блок вправо.

После установки батарейного блока
Не переносите свой видеомагнитофон, держа его за батарейный блок. В противном случае, батарейный блок может соскользнуть с этого видеомагнитофона, что может привести к его повреждению.

Индикатор оставшегося времени работы батареи
При использовании батарейного блока InfoLITHIUM оставшееся время работы батареи отображается на экране ЖКД. Оно может отображаться не совсем точно, в зависимости от условий и обстоятельств, в которых используется аппаратура. Когда батарея разряжена, отображается соответствующее сообщение. Если Вы закроете панель ЖКД и откроете ее снова, то пройдет около 1 минуты, прежде чем на дисплее появится правильное время оставшегося заряда батарейного блока.

Step 1 Preparing the power supply

Charging the battery pack

Use the battery pack after charging it for your VCR.
You can charge the battery with your VCR.

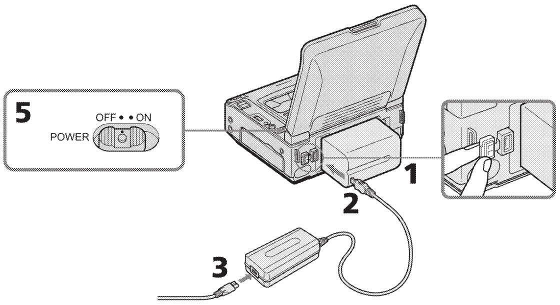
(1) Install the battery pack.
(2) Open the DC IN jack cover and connect the AC power adaptor (supplied with your VCR) to the DC IN jack with the plug's ▲ mark facing right.
(3) Connect the mains lead to the AC power adaptor.
(4) Connect the mains lead to the mains.
(5) Set the POWER switch to OFF. When charging begins, the POWER ON/CHARGE lamp lights up orange.

Пункт 1 Подготовка источника питания

Зарядка батарейного блока

Используйте батарейный блок для этого видеомагнитофона после его зарядки.
Батарейный блок можно заряжать, не снимая его с видеомагнитофона.

(1) Установите батарейный блок.
(2) Откройте крышку гнезда DC IN и подсоедините сетевой адаптер переменного тока (прилагается к видеомагнитофону) к гнезду DC IN, так чтобы метка ▲ на штекере была повернута вправо.
(3) Подсоедините провод электропитания к адаптеру переменного тока.
(4) Подсоедините сетевой шнур к электрической сети.
(5) Установите переключатель POWER в положение OFF. Когда зарядка начинается, лампочка POWER ON/CHARGE загорается оранжевым светом.



After charging the battery pack

Disconnect the AC power adaptor from the DC IN jack on your VCR.

Notes
- Prevent metallic objects from coming into contact with the metal parts of the DC plug of the AC power adaptor. Otherwise, a short-circuit may occur and damage the AC power adaptor.
- Keep the battery pack dry.
- If the battery pack is not to be used for an extended period, charge the battery pack once fully, and then use it until it fully discharges again. Keep the battery pack in a cool place.

When the battery pack is charged fully
The POWER ON/CHARGE lamp goes off.

После зарядки батарейного блока

Отсоедините сетевой адаптер переменного тока от гнезда DC IN на видеомагнитофоне.

Примечания
- Не допускайте контакта металлических предметов с металлическими частями штекера постоянного тока сетевого адаптера. Иначе может произойти короткое замыкание и повреждение Вашего видеомагнитофона.
- Всегда удаляйте влагу с батарейного блока.
- Если батарейный блок не будет использоваться в течение длительного промежутка времени, полностью зарядите его, а затем используйте, пока он не разрядится окончательно. Храните батарейный блок в прохладном месте.

Когда батарейный блок заряжен полностью
Лампочка POWER ON/CHARGE не горит.

Step 1 Preparing the power supply

Пункт 1 Подготовка источника питания

Charging time/Время зарядки

Battery pack/ Батарейный блок	Full charge (Normal charge)/ Полная зарядка (нормальная зарядка)
NP-F330	150 (90)
NP-F530/F550	210 (150)
NP-F730/F750	300 (240)
NP-F930/F950	390 (330)
NP-F960	420 (360)

Approximate number of minutes to charge an empty battery pack

Приблизительное время в минутах для зарядки полностью разряженного батарейного блока

Playing time/Время воспроизведения

Battery pack/ Батарейный блок	Playing time on LCD screen/ Время воспроизведения на экране ЖКД	Playing time with LCD closed/ Время воспроизведения при закрытом ЖКД
NP-F330	60 (55)	105 (95)
NP-F530	100 (90)	175 (160)
NP-F550	130 (115)	210 (190)
NP-F730	225 (205)	365 (325)
NP-F750	265 (235)	440 (395)
NP-F930	360 (325)	575 (520)
NP-F950	405 (360)	675 (610)
NP-F960	475 (430)	790 (710)

Approximate number of minutes when you use a fully charged battery pack

Numbers in parentheses "( )" indicate the time using a normally charged battery pack. The battery life will be shorter if you use your VCR in a cold environment.

You can charge the battery pack abroad
For details, refer to page 94.

If the power goes off even though the battery remaining indicator shows that the battery pack has enough power to operate
Charge the battery pack fully again so that the battery remaining indicator is corrected.

What is "InfoLITHIUM"?
The "InfoLITHIUM" is a lithium ion battery pack which can exchange data, such as battery consumption, with compatible electronic equipment. This VCR is compatible with the "InfoLITHIUM" battery pack (L series). Your VCR operates only with the "InfoLITHIUM" battery pack. The "InfoLITHIUM" battery pack has the ⓘ InfoLITHIUM L mark.
"InfoLITHIUM" is a trademark of Sony Corporation.

Приблизительное время в минутах при использовании полностью заряженного батарейного блока

Цифры в скобках "( )" указывают время при использовании батарейного блока с нормальной зарядкой. При использовании видеомагнитофона в холодных условиях срок службы батарейного блока сокращается.

Батарейный блок можно заряжать, находясь за границей
Подробные сведения см. на стр. 94.

Если питание отключается, хотя индикатор оставшегося времени работы батареи показывает достаточный для работы заряд
Снова полностью зарядите батарейный блок, чтобы индикатор правильно показывал оставшееся время работы батареи.

Что такое "InfoLITHIUM"?
"InfoLITHIUM" представляет собой ионно-литиевый батарейный блок, который может обмениваться данными, такими как потребление энергии батарейного блока, с совместимым электронным оборудованием. Этот видеомагнитофон совместим с батарейным блоком "InfoLITHIUM" (серии L). Ваш видеомагнитофон работает только с батарейным блоком "InfoLITHIUM". На батарейном блоке "InfoLITHIUM" имеется метка ⓘ InfoLITHIUM L.
"InfoLITHIUM" является торговой маркой корпорации Sony.

Step 2 Inserting a cassette

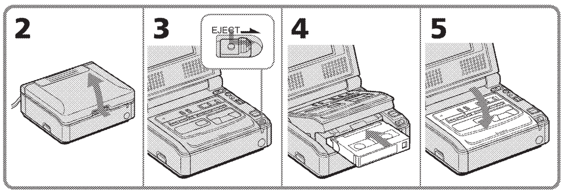
We recommend using Hi8 Hi8/Digital8 video cassettes.

(1) Prepare the power supply (p. 8-11).
(2) While pressing PUSH OPEN, open the LCD panel.
(3) While pressing the small blue button, slide EJECT in the direction of the arrow. The cassette compartment automatically lifts up and opens.
(4) Insert a cassette with the window facing up.
(5) Close the cassette compartment by pressing the PUSH mark on the cassette compartment.

Пункт 2 Установка кассеты

Рекомендуется использовать кассеты Hi8 Hi8/Digital8.

(1) Подготовьте источник питания (стр. 8-11).
(2) Нажав кнопку PUSH OPEN, откройте панель ЖКД.
(3) Нажав небольшую синюю кнопку, передвиньте переключатель EJECT в направлении стрелки. Кассетный отсек автоматически поднимется вверх и откроется.
(4) Вставьте кассету так, чтобы окошко было обращено вверх.
(5) Закройте кассетный отсек, нажав на нем кнопку PUSH.



To eject a cassette

Follow the procedure above, and eject the cassette in step **4**.

Notes
- Do not insert your fingers or touch inside of the cassette compartment with your fingers when it is open. It may cause your VCR to malfunction.
- Your VCR records pictures in the Digital8 system.
- The recording time when you use your VCR is 2/3 of indicated time on Hi8 Hi8 (PAL) tape.
  If you select the LP mode in the menu settings, indicated time on Hi8 Hi8 (PAL) tape.
- If you use standard 8 8 tape, be sure to play back the tape on your VCR.
  Mosaic pattern noise may appear when you play back standard 8 8 tape on other VCRs.

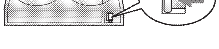
To prevent accidental erasure
Slide the write-protect tab on the cassette to expose the red mark.

Для извлечения кассеты

Выполните указанную выше процедуру и выньте кассету в пункте **4**.

Примечания
- Когда кассетный отсек открыт, не прикасайтесь пальцами к его внутренним частям. Это может привести к неисправности видеомагнитофона.
- Ваш видеомагнитофон записывает изображения в системе Digital8.
- Время записи при использовании Вашего видеомагнитофона составляет 2/3 времени, обозначенного на кассете Hi8 Hi8 (PAL).
  При выборе режима LP в настройках меню, время обозначено на кассете Hi8 Hi8 (PAL).
- Если используется кассета standard 8 8, ее следует воспроизводить на этом же видеомагнитофоне.
  При воспроизведении кассеты standard 8 8 на других видеомагнитофонах могут появляться мозаичные помехи.

Для предотвращения случайного стирания
Передвиньте лепесток защиты записи на кассете, так чтобы появилась красная метка.



— Basic Operations —

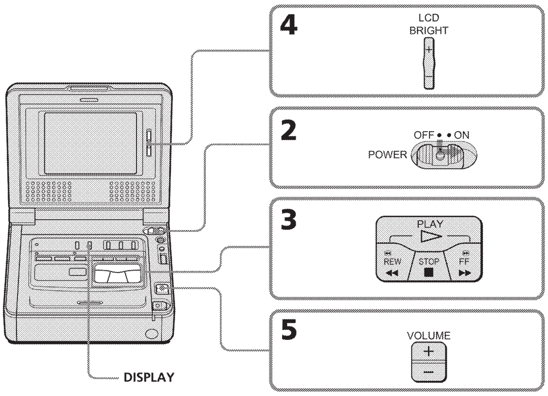
Playing back a tape

(1) Prepare the power supply and insert a cassette to play back (p. 8-12).
(2) While pressing the small green button on the POWER switch, set it to ON.
The POWER ON/CHARGE lamp (green) on the front lights up.
(3) Press ▷ to start playback.
(4) Adjust the brightness using LCD BRIGHT.
(5) Adjust the volume using VOLUME.

— Основные операции —

Воспроизведение ленты

(1) Подготовьте источник питания и вставьте кассету для воспроизведения (стр. 8-12).
(2) Нажав на маленькую зеленую кнопку на переключателе POWER, установите его в положение ON.
Загорается (зеленая) лампочка POWER ON/CHARGE, расположенная на передней панели.
(3) Нажмите кнопку ▷ для начала воспроизведения.
(4) Отрегулируйте яркость с помощью кнопки LCD BRIGHT.
(5) Отрегулируйте громкость с помощью кнопки VOLUME.



To stop playback
Press ■.

Note on the DISPLAY button
Press DISPLAY to display the screen indicators. To make the indicators disappear, press it again.

Для остановки воспроизведения
Нажмите кнопку ■.

Примечание относительно кнопки DISPLAY
Нажмите кнопку DISPLAY для отображения экранных индикаторов. Нажмите ее еще раз, чтобы индикаторы исчезли.

Various playback modes

To operate the video control buttons, set the POWER switch to ON.

To view a still image (playback pause)
Press II during playback. The PAUSE lamp (orange) lights up. To resume playback, press II or ▷.

To advance the tape
Press ▶▶ in stop mode. To resume normal playback, press ▷.

To rewind the tape
Press ◀◀ in stop mode. To resume normal playback, press ▷.

To change the playback direction
Press ◀II < during playback to reverse the playback direction. To resume normal playback, press ▷.

To locate a scene while searching the picture (picture search)
Keep pressing ◀◀ or ▶▶ during playback. To resume normal playback, release the button.

To monitor the high-speed picture at high speed while advancing or rewinding the tape (skip scan)
Keep pressing ◀◀ while rewinding or ▶▶ while advancing the tape. To resume rewinding or advancing, release the button.

To view the picture at slow speed (slow playback)
Press I▶ during playback. For slow playback in the reverse direction, press ◀II < during playback, then press I▶. To resume normal playback, press ▷.

To view the picture at double speed
Press ×2 during playback. For double speed playback in the reverse direction, press ◀II < during playback, then press ×2. To resume normal playback, press ▷.

To view the picture frame-by-frame
Press > II▶ FRAME (+) in playback pause mode. For frame-by-frame playback in the reverse direction, press ◀II < FRAME (–) in playback pause mode. To resume normal playback, press ▷.

Различные режимы воспроизведения

Для использования кнопок управления видеоизображением установите переключатель POWER в положение ON.

Для просмотра неподвижного изображения (пауза воспроизведения)
Во время воспроизведения нажмите кнопку II. Загорится лампочка PAUSE (оранжевым светом). Для возобновления обычного воспроизведения нажмите кнопку II или ▷.

Для ускоренной перемотки ленты вперед
В режиме остановки нажмите кнопку ▶▶. Для возобновления обычного воспроизведения нажмите кнопку ▷.

Для ускоренной перемотки ленты назад
Нажмите в режиме остановки кнопку ◀◀. Для возобновления обычного воспроизведения нажмите кнопку ▷.

Для изменения направления воспроизведения
Во время воспроизведения нажмите кнопку ◀II < для изменения направления воспроизведения. Для возобновления обычного воспроизведения нажмите кнопку ▷.

Для отыскания эпизода во время поиска изображения (поиск изображения)
Держите нажатой кнопку ◀◀ или ▶▶ во время воспроизведения. Для возобновления обычного воспроизведения отпустите кнопку.

Для контроля изображения на высокой скорости во время перемотки ленты вперед или назад (поиск методом прогона)
Держите нажатой кнопку ◀◀ во время перемотки ленты назад или кнопку ▶▶ во время перемотки ленты вперед. Для возобновления перемотки ленты вперед или назад отпустите кнопку.

Для просмотра воспроизведения изображения на замедленной скорости (замедленное воспроизведение)
Во время воспроизведения нажмите кнопку I▶. Для замедленного воспроизведения в обратном направлении во время воспроизведения нажмите кнопку ◀II <, затем нажмите кнопку I▶. Для возобновления обычного воспроизведения нажмите кнопку ▷.

In these various playback modes
- Noise may appear when your VCR plays back tapes recorded in the Hi8/standard 8 system.
- Sound is muted.
- The previous recording may appear as a mosaic image when playing back in Digital8 system.
- The VCR does not automatically detect Digital8 or Hi8/standard 8 systems in the various playback modes.

Notes on the playback pause mode
- When playback pause mode lasts for 3 minutes, your VCR automatically enters the stop mode. To resume playback, press ▷.
- The previous recording may appear.

Slow playback for tapes recorded in the Digital8 system
Slow playback mode can be performed smoothly on your VCR; however, this function does not work for an output signal from the i DV IN/OUT jack.

When you play back a tape in reverse
Horizontal noise may appear at the center or top and bottom of the screen. This is not a malfunction.

Using headphones
Connect headphones (not supplied) to the 🎧 jack (p. 105). You can adjust the volume of the headphones by using the VOLUME +/– buttons. When you connect headphones, the sound does not output from the speakers.

Для просмотра воспроизведения изображения на удвоенной скорости
Во время воспроизведения нажмите кнопку ×2. Для воспроизведения на удвоенной скорости в обратном направлении во время воспроизведения нажмите кнопку ◀II <, затем нажмите кнопку ×2. Для возобновления обычного воспроизведения нажмите кнопку ▷.

Для покадрового просмотра воспроизведения изображения
Нажмите кнопку > II▶ FRAME (+) в режиме паузы воспроизведения. Для покадрового воспроизведения в обратном направлении нажмите кнопку ◀II < FRAME (–) в режиме паузы воспроизведения. Для возобновления обычного воспроизведения нажмите кнопку ▷.

При работе в различных режимах воспроизведения
- При воспроизведении на Вашем видеомагнитофоне кассет, записанных в системе Hi8/standard 8, могут появиться помехи.
- Звук будет приглушен.
- При воспроизведении в системе Digital8 предыдущая запись может отображаться как мозаичное изображение.
- При работе в различных режимах воспроизведения видеомагнитофон не распознает системы Digital8 или Hi8/standard 8 автоматически.

Примечания относительно режима паузы воспроизведения
- Если видеомагнитофон находится в режиме паузы воспроизведения 3 минуты, он автоматически перейдет в режим остановки. Для возобновления обычного воспроизведения нажмите кнопку ▷.
- Может появиться предыдущая запись.

Замедленное воспроизведение кассет, записанных в системе Digital8
Режим замедленного воспроизведения может выполняться на Вашем видеомагнитофоне без помех; однако эта функция не работает, когда выходной сигнал выдается через гнездо i DV IN/OUT.

При воспроизведении ленты в обратном направлении
В центре или вверху и внизу экрана могут появляться горизонтальные помехи. Однако это не является неисправностью.

Использование головных телефонов
Подсоедините головные телефоны (не входят в комплект) к гнезду 🎧 (стр. 105). Громкость в головных телефонах можно отрегулировать с помощью кнопок VOLUME +/–. При подсоединении головных телефонов звук из громкоговорителя не выводится.

Playing back a dual soundtrack tape

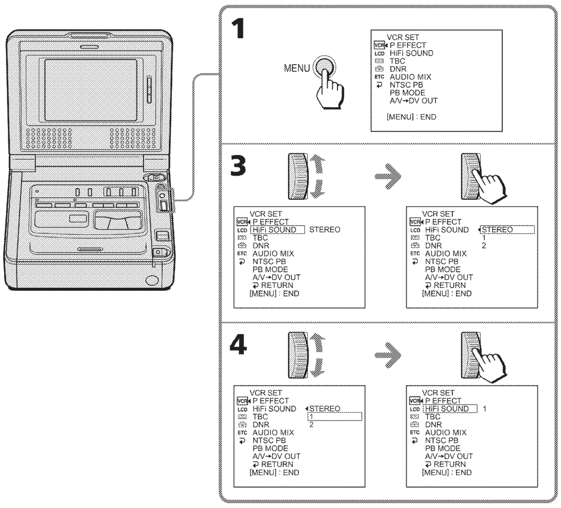
When you play back a dual soundtrack tape, select the desired sound in the menu settings.

(1) Press MENU to display the menu settings.
(2) Turn the SEL/PUSH EXEC dial to select VCR, then press the dial.
(3) Turn the SEL/PUSH EXEC dial to select HiFi SOUND, then press the dial.
(4) Turn the SEL/PUSH EXEC dial to select the desired sound, then press the dial.
For details about the sound mode, refer to page 67.
(5) Press MENU to make the menu disappear.

Воспроизведение ленты с двойной звуковой дорожкой

При воспроизведении ленты с двойной звуковой дорожкой выберите нужный звук в меню.

(1) Нажмите кнопку MENU для отображения установок меню.
(2) Поверните диск SEL/PUSH EXEC для выбора установки VCR, а затем нажмите на диск.
(3) Поверните диск SEL/PUSH EXEC для выбора HiFi SOUND, а затем нажмите на диск.
(4) Поверните диск SEL/PUSH EXEC для выбора нужного звука, а затем нажмите на диск.
Подробные сведения о звуковых режимах см. на соответствующих страницах (стр. 67).
(5) Нажмите кнопку MENU для того, чтобы убрать меню.



Using a Remote Commander

You can operate your VCR using the Remote Commander supplied with a Sony product.
Set COMMANDER in the menu settings, according to the remote control code of the Sony product.

Code	Sony product
VTR 1	Betamax VCR
VTR 2	8mm video camera recorder Digital video camera recorder 8mm VCR
VTR 3	VHS VCR
VTR 4	Digital VCR Digital video camera recorder
VTR 5 and 6	Digital VCR

Note
You cannot set the POWER switch to ON or OFF, or eject the cassette with the Remote Commander.

Использование пульта дистанционного управления

Управлять Вашим видеомагнитофоном можно с помощью пульта дистанционного управления, прилагаемого к аппаратуре Sony.
Установите для параметра COMMANDER в установках меню соответствующий код пульта дистанционного управления аппаратуры Sony.

Код	Аппаратура Sony
VTR 1	Видеомагнитофон Betamax
VTR 2	Видеокамера стандарта 8mm Цифровая видеокамера Видеомагнитофон стандарта 8mm
VTR 3	Видеомагнитофон VHS
VTR 4	Цифровой видеомагнитофон Цифровая видеокамера
VTR 5 и 6	Цифровой видеомагнитофон

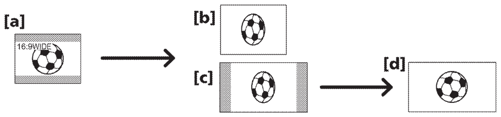
Примечание
С помощью пульта дистанционного управления нельзя установить переключатель POWER в положение ON или OFF или извлечь кассету.

Wide mode playback and recording

Pictures recorded with a Sony digital video camera recorder that have an aspect ratio of 16:9 on your VCR can be played back. For details, refer to the operating instructions of your TV. Black bands appear on the LCD screen during playback in 16:9 WIDE mode **[a]**. The picture during playback on a normal TV **[b]** or a wide-screen TV **[c]** are compressed in the widthwise direction. If you set screen mode of the 16:9 wide-screen TV to the full mode, you can see normal images **[d]**.

Воспроизведение и запись в широкоэкранном режиме

На Вашем видеомагнитофоне можно воспроизводить изображения, записанные с помощью цифровой видеокамеры Sony и имеющие формат изображения 16:9. Подробные сведения см. в инструкции по эксплуатации Вашего телевизора. Во время воспроизведения в режиме 16:9 WIDE **[a]** на экране ЖКД появляются черные полосы. Изображение во время воспроизведения на обычном телевизоре **[b]** или на широкоэкранном телевизоре **[c]** будет сжато по ширине. При установке полноэкранного режима широкоэкранного телевизора с форматом 16:9 изображения будут иметь обычный размер **[d]**.



When recording a 16:9 screen
Your VCR automatically detects the wide mode signals and records in wide mode.

При записи изображения формата 16:9
Ваш видеомагнитофон автоматически распознает сигналы широкоформатного режима и записывает в этом режиме.

Viewing the recording on TV

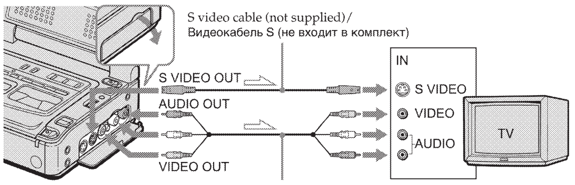
Connect your VCR to your TV or to the other VCR with the A/V connecting cable supplied with your VCR to watch the playback picture on the TV screen. Connect the plugs to the jacks in the same colours on your VCR and the TV or the other VCR. Refer to the operating instructions of your TV or the other VCR.
The playback procedure is the same as when playing back on the LCD screen. Turn down the volume of your VCR.

Open the jack cover. Connect your VCR to the TV using the A/V connecting cable. Then, set the TV/VCR selector on the TV to VCR.

Просмотр записи на экране телевизора

Для просмотра воспроизводимого изображения на экране телевизора подсоедините видеомагнитофон к телевизору или другому видеомагнитофону с помощью соединительного кабеля аудио/видео, который входит в комплект поставки видеомагнитофона. Подключите штекеры к гнездам того же цвета видеомагнитофона и телевизора или другого видеомагнитофона. См. инструкции по эксплуатации Вашего телевизора или другого видеомагнитофона.
Процедура воспроизведения аналогична той, что используется при воспроизведении на экране ЖКД. Уменьшите громкость на видеомагнитофоне.

Откройте крышку гнезд. Подключите видеомагнитофон к телевизору с помощью соединительного кабеля аудио/видео. Затем установите селектор TV/VCR на телевизоре в положение VCR.



S video cable (not supplied)/
Видеокабель S (не входит в комплект)

: Signal flow/
Передача сигнала

A/V connecting cable (supplied)/
Соединительный кабель аудио/видео (входит в комплект)

If your TV is already connected to the other VCR

Connect your VCR to the LINE IN input on the other VCR with the A/V connecting cable (supplied). Set the input selector on the VCR to LINE.

If your TV or the other VCR is a monaural type

Connect the yellow plug of the A/V connecting cable to the video input jack and the white plug to the audio input jack on the other VCR or the TV. You do not connect the red plug.
With this connection, the sound is monaural even in stereo mode.

Если телевизор уже подсоединен к другому видеомагнитофону

Подсоедините видеомагнитофон к входному гнезду LINE IN на другом видеомагнитофоне с помощью соединительного кабеля аудио/видео (входит в комплект). Установите селектор входного сигнала на видеомагнитофоне в положение LINE.

Если Ваш телевизор или другой видеомагнитофон монофонического типа

Подсоедините желтый штекер соединительного кабеля аудио/видео к входному гнезду видеосигнала, а белый штекер - к входному гнезду аудиосигнала на другом видеомагнитофоне или телевизоре. Не подключайте красный штекер.
При этом подключении звук будет монофоническим, даже если выбран режим стерео.

To connect to a TV or the other VCR without video/audio input jacks

Use a PAL system RFU adaptor (not supplied). Refer to the operating instructions of your TV or the other VCR and the RFU adaptor. With an RFU adaptor the sound is monaural even on stereo models.

If your TV or the other VCR has a 21-pin connector (EUROCONNECTOR)

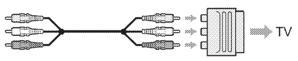
Use the 21-pin adaptor supplied with your VCR.

Для подключения к телевизору или другому видеомагнитофону, не оснащенным входными гнездами видео/аудио

Используйте адаптер RFU системы PAL (не входит в комплект). См. инструкции по эксплуатации Вашего телевизора или другого видеомагнитофона и адаптера RFU. При подключении адаптера RFU звук будет монофоническим, даже если подключенная модель является устройством с функцией стерео.

Если на телевизоре или другом видеомагнитофоне имеется 21-штырьковый разъем (EUROCONNECTOR)

Используйте 21-штырьковый адаптер, прилагаемый к Вашему видеомагнитофону.



If your TV or the other VCR has an S video jack
Connect using an S video cable (not supplied) to obtain high-quality pictures.
With this connection, you do not need to connect the yellow (video) plug of the A/V connecting cable.
Connect an S video cable (not supplied) to the S VIDEO OUT jack on your VCR and the S video jack on the TV or the other VCR.

Если на телевизоре или другом видеомагнитофоне имеется видеогнездо S
Выполните соединение с помощью видеокабеля S (не входит в комплект) для получения высококачественного изображения.
При таком соединении не понадобится подключать желтый штекер (видео) соединительного кабеля аудио/видео.
Подключите видеокабель S (не входит в комплект) к гнезду S VIDEO OUT на этом видеомагнитофоне и к видеогнезду S на телевизоре или другом видеомагнитофоне.

Viewing the recording on TV

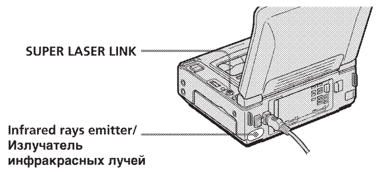
Using the AV cordless IR receiver

Once you connect the AV cordless IR receiver (not supplied) to your TV or the other VCR, you can easily view the picture on your TV. For details, refer to the operating instructions of the AV cordless IR receiver.

Просмотр записи на экране телевизора

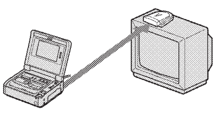
Использование беспроводного ИК аудиовидеоприемника

После подсоединения беспроводного ИК аудиовидеоприемника (не входит в комплект) к Вашему телевизору или другому видеомагнитофону можно просматривать изображение на экране телевизора. Подробные сведения см. в инструкции по эксплуатации беспроводного ИК аудиовидеоприемника.



(1) After connecting your TV and the AV cordless IR receiver, set the POWER switch on the AV cordless IR receiver to ON.
(2) Turn the TV on and set the TV/VCR selector on the TV to VCR.
(3) Set the POWER switch on your VCR to ON.
(4) Press SUPER LASER LINK. The lamp on the SUPER LASER LINK button lights up.
(5) Press ▷ on your VCR to start playback.
(6) Point your VCR at the AV cordless IR receiver. Adjust the position of your VCR and the AV cordless IR receiver to obtain clear playback pictures.

(1) После подсоединения беспроводного ИК аудиовидеоприемника к Вашему телевизору установите переключатель POWER на беспроводном ИК аудиовидеоприемнике в положение ON.
(2) Включите телевизор и установите селектор TV/VCR на телевизоре в положение VCR.
(3) Установите переключатель POWER на видеомагнитофоне в положение ON.
(4) Нажмите кнопку SUPER LASER LINK. Загорится лампочка SUPER LASER LINK.
(5) Нажмите кнопку ▷ на видеомагнитофоне для начала воспроизведения.
(6) Направьте видеомагнитофон на беспроводный ИК аудиовидеоприемник. Отрегулируйте положение видеомагнитофона и беспроводного ИК аудиовидеоприемника для получения четкого воспроизводимого изображения.



To cancel the super laser link function
Press SUPER LASER LINK. The lamp on the SUPER LASER LINK button goes off.

Для отмены функции лазерного суперканала передачи сигналов
Нажмите кнопку SUPER LASER LINK. Лампочка SUPER LASER LINK погаснет.

Viewing the recording on TV

If you turn the power off
The super laser link function turns off automatically.

When super laser link function is activated (the SUPER LASER LINK button is lit)
Your VCR consumes power. Press SUPER LASER LINK to turn off the super laser link function when it is not needed.

is a trademark of Sony Corporation.

Просмотр записи на экране телевизора

При выключении питания
Функция лазерного суперканала передачи сигналов отключится автоматически.

При включенном лазерном суперканале передачи сигналов (при этом подсвечивается кнопка SUPER LASER LINK)
Видеомагнитофон потребляет энергию. Нажмите кнопку SUPER LASER LINK, чтобы отключить функцию лазерного суперканала передачи сигналов, если она не требуется.

является торговой маркой корпорации Sony.

Recording from the other VCR or TV

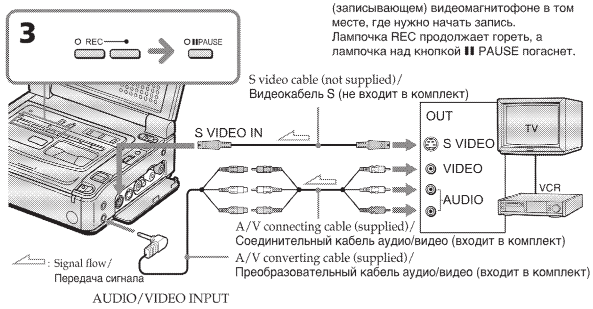
Using the A/V connecting cable
You can record a tape from the other VCR or a TV programme that has audio/video outputs. Use your VCR as a recorder.

(1) Insert a blank tape (or a tape you want to record over) into your (recording) VCR. If you are recording a tape from the other (playback) VCR, insert a recorded tape into the other (playback) VCR.
(2) Set the POWER switch to ON.
(3) Press REC and the button on its right simultaneously on your (recording) VCR, then immediately press ❚❚ on your (recording) VCR. The REC (red) and PAUSE (orange) lamps light up.
(4) Press ▷ on the other (playback) VCR to start playback if you are recording a tape from the other (playback) VCR. Select a TV programme if you are recording from TV.
The picture from a TV or the other VCR appears on the LCD screen of your (recording) VCR.
(5) Press ❚❚ on your (recording) VCR at the scene where you want to start recording from.
The REC lamp remains on and the lamp on the ❚❚ PAUSE button goes off.

Запись с другого видеомагнитофона или телевизора

Использование соединительного кабеля аудио/видео
Можно выполнить запись на кассету с другого видеомагнитофона или записать телепередачу с телевизора, который имеет выходы видео/аудио. Используйте видеомагнитофон в качестве записывающего устройства.

(1) Вставьте чистую кассету (или кассету, на которую Вы хотите выполнить запись) в свой (записывающий) видеомагнитофон. При записи с другого видеомагнитофона вставьте кассету, с которой будет производиться запись, в другой (воспроизводящий) видеомагнитофон.
(2) Установите переключатель POWER в положение ON.
(3) Одновременно нажмите кнопку REC и кнопку справа от нее на (записывающем) видеомагнитофоне, затем сразу нажмите кнопку ❚❚ на (записывающем) видеомагнитофоне. Загорятся две лампочки: REC (красная) и PAUSE (оранжевая).
(4) Если запись выполняется с другого (воспроизводящего) видеомагнитофона, нажмите на нем кнопку ▷ для начала воспроизведения. Выберите телевизионную программу, если запись выполняется с телевизора.
Изображение с телевизора или другого видеомагнитофона появится на экране ЖКД этого (записывающего) видеомагнитофона.
(5) Нажмите кнопку ❚❚ на Вашем (записывающем) видеомагнитофоне в том месте, где нужно начать запись.
Лампочка REC продолжает гореть, а лампочка над кнопкой ❚❚ PAUSE погаснет.


3
REC
❚❚PAUSE
S video cable (not supplied)/
Видеокабель S (не входит в комплект)
S VIDEO IN
OUT
S VIDEO
VIDEO
AUDIO
TV
VCR
A/V connecting cable (supplied)/
Соединительный кабель аудио/видео (входит в комплект)
A/V converting cable (supplied)/
Преобразовательный кабель аудио/видео (входит в комплект)
: Signal flow/
Передача сигнала
AUDIO/VIDEO INPUT

Recording from the other VCR or TV

When you have finished recording a tape
Press ■ on both your (recording) VCR and the other (playback) VCR.

Notes
- To enable smooth transition, we recommend that you do not mix pictures recorded in the Hi8/standard 8 with the Digital8 system on a tape.
- If you use fast-forward or slow-playback mode on the other (playback) VCR, the image being recorded may fluctuate. When you record from the other (playback) VCR, be sure to play back the original tape at normal speed.
- You can record a picture from another VCR or TV of PAL system only, not from the VCR or TV of SECAM system.

If the other (playback) VCR or TV is a monaural type
Connect the yellow plug of the A/V connecting cable to the video output jack and the white plug to the audio output jack on the VCR or the TV. (Do not connect the red plug.) The sound is monaural.

If your TV or the other (playback) VCR has an S video jack
Connect using an S video cable (not supplied) to obtain high-quality pictures.
With this connection, you do not need to connect the yellow (video) plug of the A/V connecting cable.
Connect an S video cable (not supplied) to the S video jacks of both your (recording) VCR and the TV or the other (playback) VCR.

Запись с другого видеомагнитофона или телевизора

После завершения записи кассеты
Нажмите кнопку ■ на этом (записывающем) и другом (воспроизводящем) видеомагнитофонах.

Примечания
- Для обеспечения плавного перехода на одной кассете рекомендуется не записывать изображения в различных системах - Hi8/standard 8 и Digital8.
- Во время быстрой перемотки вперед или в режиме замедленного воспроизведения на другом (воспроизводящем) видеомагнитофоне, записываемое изображение может дрожать. При записи с другого (воспроизводящего) видеомагнитофона, воспроизводите кассету оригинала на обычной скорости.
- Вы можете записывать изображение только с другого видеомагнитофона или телевизора системы PAL. Запись изображения с другого видеомагнитофона или телевизора системы SECAM невозможна.

Если другой (воспроизводящий) видеомагнитофон или телевизор монофонического типа
Подключите желтый штекер соединительного кабеля аудио/видео к выходному гнезду видеосигнала, а белый штекер к выходному гнезду аудиосигнала на видеомагнитофоне или телевизоре. (Не подключайте красный штекер.) Звук будет монофоническим.

Если на телевизоре или другом (воспроизводящем) видеомагнитофоне имеется видеогнездо S
Выполните соединение с помощью видеокабеля S (не входит в комплект) для получения высококачественных изображений.
При таком соединении не понадобится подключать желтый штекер (видео) соединительного кабеля аудио/видео.
Подсоедините видеокабель S (не входит в комплект) к видеогнездам S на Вашем (записывающем) видеомагнитофоне и телевизоре или другом (воспроизводящем) видеомагнитофоне.

Recording from the other VCR or TV

Using the i.LINK cable (DV connecting cable)

Simply connect the i.LINK cable (DV connecting cable) (not supplied) to the i DV IN/OUT or DV IN/OUT jack of the DV products. With digital-to-digital connection, video and audio signals are transmitted in digital form for high-quality editing.

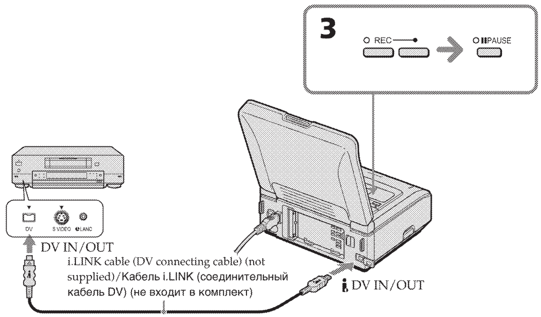
(1) Insert a blank tape (or a tape you want to record over) into your (recording) VCR, and insert the recorded tape into the other (playback) VCR.
(2) Set the POWER switch to ON.
(3) Press REC and the button on its right simultaneously on your (recording) VCR, then immediately press ❚❚ on your (recording) VCR.
The REC (red) and PAUSE (orange) lamps light up.
(4) Press ▷ on the other (playback) VCR to start playback.
The picture from a TV or the other (playback) VCR appears on the LCD screen of your (recording) VCR.
(5) Press ❚❚ on your (recording) VCR at the scene where you want to start recording from.
The REC lamp remains on and the PAUSE lamp goes off.

Запись с другого видеомагнитофона или телевизора

Использование кабеля i.LINK (соединительный кабель DV)

Просто подсоедините кабель i.LINK (соединительный кабель DV) (не входит в комплект) к гнезду i DV IN/OUT или к гнезду DV IN/OUT аппаратов DV. При использовании цифрового соединения видео- и аудиосигналы передаются в цифровом виде для последующего высококачественного монтажа.

(1) Вставьте чистую кассету (или кассету, на которую Вы хотите выполнить запись) в свой (записывающий) видеомагнитофон, и вставьте записанную кассету в другой (воспроизводящий) видеомагнитофон.
(2) Установите переключатель POWER в положение ON.
(3) Одновременно нажмите кнопку REC и кнопку справа от нее на Вашем (записывающем) видеомагнитофоне, затем сразу нажмите кнопку ❚❚ на Вашем (записывающем) видеомагнитофоне.
Загорятся две лампочки: REC (красная) и PAUSE (оранжевая).
(4) Нажмите кнопку ▷ на другом (воспроизводящем) видеомагнитофоне для начала воспроизведения.
Изображение с телевизора или другого (воспроизводящего) видеомагнитофона появится на экране ЖКД этого (записывающего) видеомагнитофона.
(5) Нажмите кнопку ❚❚ на Вашем (записывающем) видеомагнитофоне в том месте, где нужно начать запись.
Лампочка REC продолжает гореть, а лампочка PAUSE погаснет.


3
REC
❚❚PAUSE
DV
S VIDEO
LANC
DV IN/OUT
i.LINK cable (DV connecting cable) (not supplied)/Кабель i.LINK (соединительный кабель DV) (не входит в комплект)
i DV IN/OUT

: Signal flow/
Передача сигнала

Recording from the other VCR or TV

When you have finished recording a tape

Press ■ on both your (recording) VCR and the other (playback) VCR.

Note

If the connected equipment has a different kind of i.LINK system, it is not compatible with your VCR.

You can connect one VCR only using the i.LINK cable (DV connecting cable).

During digital editing

The colour of the display may be uneven. However, this does not affect the dubbed picture.

If you record a playback pause picture with the i DV IN/OUT jack

The recorded picture becomes rough, and when you play back the picture using your VCR, the picture may jitter.

Before recording

Make sure that the DV IN indicator appears on the LCD screen by pressing the DISPLAY button. The DV IN indicator may appear on both equipment.

Запись с другого видеомагнитофона или телевизора

После завершения записи кассеты

Нажмите кнопку ■ на этом (записывающем) и другом (воспроизводящем) видеомагнитофонах.

Примечание

Если подключенная аппаратура использует другой тип системы i.LINK, она не совместима с этим видеомагнитофоном.

Вы можете подсоединить только один видеомагнитофон с помощью кабеля i.LINK (соединительный кабель DV).

Во время цифрового монтажа

Цвет изображения может быть неоднородным. Однако это не влияет на перезапись изображения.

При записи неподвижного изображения с помощью гнезда i DV IN/OUT

Записываемое изображение становится неровным. При воспроизведении изображения на данном видеомагнитофоне оно может дрожать.

Перед записью

Убедитесь, что при нажатии на кнопку DISPLAY на экране ЖКД отображается индикатор DV IN. Индикатор DV IN может появится на обоих аппаратах.

— Advanced Operations —

Enlarging playback images – PB ZOOM

You can enlarge moving and still images played back on tape.

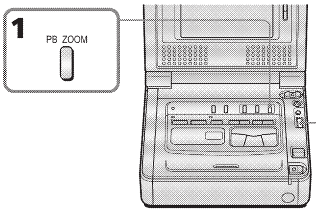
(1) Press PB ZOOM on your VCR while you are playing back. The image is enlarged, and ↑ ↓ ← → appear on the LCD screen.
(2) Turn the SEL/PUSH EXEC dial to move the enlarged image, then press the dial.
  ↑ : The image moves downwards.
  ↓ : The image moves upwards.
(3) Turn the SEL/PUSH EXEC dial to move the enlarged image, then press the dial.
  ← : The image moves rightward (Turn the dial downwards.)
  → : The image moves leftward (Turn the dial upwards.)

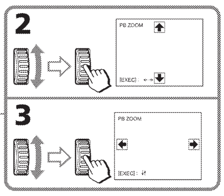
— Усовершенствованные операции —

Увеличение воспроизводимых изображений – PB ZOOM

Можно увеличивать подвижные и неподвижные изображения, воспроизводимые на кассетах.

(1) Во время воспроизведения нажмите кнопку PB ZOOM на Вашем видеомагнитофоне. Изображение будет увеличено, а на экране ЖКД появится ↑ ↓ ← →.
(2) Поверните диск SEL/PUSH EXEC для перемещения увеличенного изображения, затем нажмите на диск.
  ↑ : Изображение перемещается вниз.
  ↓ : Изображение перемещается вверх.
(3) Поверните диск SEL/PUSH EXEC для перемещения увеличенного изображения, затем нажмите на диск.
  ← : Изображение смещается вправо (Поверните диск вниз.)
  → : Изображение перемещается влево (Поверните диск вверх.)





Enlarging playback images – PB ZOOM

To cancel the PB ZOOM function

Press PB ZOOM again.

Notes

- The PB ZOOM function works only for tapes recorded in the Digital8 Ð system.
- You cannot process externally input scenes using the PB ZOOM function.
- You cannot record pictures that you have processed using the PB ZOOM function with your VCR. To record pictures that you have processed using the PB ZOOM function, record the pictures on the other VCR using your VCR as a player.

Pictures processed by the PB ZOOM function

Pictures processed by the PB ZOOM function are not output through the i DV IN/OUT jack.

When you set the POWER switch to OFF or stop playback

The PB ZOOM function is automatically cancelled.

Увеличение воспроизводимых изображений – PB ZOOM

Для выключения функции PB ZOOM

Нажмите кнопку PB ZOOM еще раз.

Примечания

- Функция PB ZOOM работает только для кассет, записанных в системе Digital8 Ð.
- Вы не можете видоизменять с помощью функции PB ZOOM изображения, полученные от внешнего источника.
- Вы не можете записывать изображения, которые были видоизменены с помощью функции PB ZOOM этого видеомагнитофона. Для записи изображений, которые были видоизменены с помощью функции PB ZOOM, запишите изображения на другой видеомагнитофон, используя свой видеомагнитофон в качестве плеера.

Изображения, видоизмененные с помощью функции PB ZOOM

Изображения, видоизмененные с помощью функции PB ZOOM, не передаются через гнездо i DV IN/OUT.

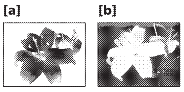
При установке переключателя POWER в положение OFF или остановке воспроизведения

Функция PB ZOOM автоматически отключится.

Watching a tape with special effects – Picture effect

You can digitally process playback images to obtain special effects like those in films or on TV.

NEG.ART [a] : The colours and brightness of the image are reversed.
SEPIA : The image is sepia.
B&W : The image is monochrome (black-and-white).
SOLARIZE [b] : The light intensity is clearer, and the image looks like an illustration.



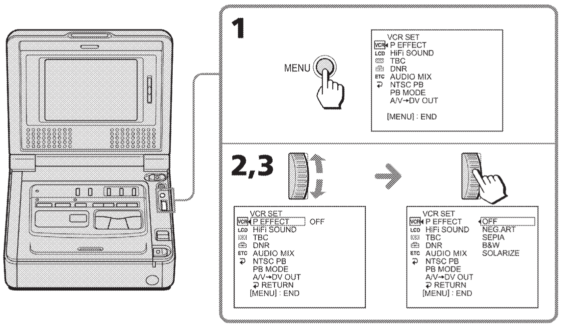
(1) Press MENU during playback.
(2) Turn the SEL/PUSH EXEC dial to select VCR, then press the dial.
(3) Turn the SEL/PUSH EXEC dial to select P EFFECT, then press the dial.
(4) Turn the SEL/PUSH EXEC dial to select the desired picture effect mode, then press the dial.
The indicator changes as follows:
NEG.ART ←→ SEPIA ←→ B&W ←→ SOLARIZE
(5) Press MENU to make the menu settings disappear.

Просмотр кассет со специальными эффектами – Эффект изображения

Можно выполнять цифровую обработку воспроизводимых изображений для получения специальных эффектов, как в кинофильмах или на телевидении.

NEG.ART [a] : Установки цвета и яркости изображения сохраняются.
SEPIA : Изображение будет цвета сепии.
B&W : Изображение будет монохромным (черно-белым).
SOLARIZE [b] : Интенсивность света будет увеличена, а изображение будет выглядеть, как рисунок.

(1) Нажмите кнопку MENU во время воспроизведения.
(2) Поверните диск SEL/PUSH EXEC для выбора установки VCR, а затем нажмите на диск.
(3) Поверните диск SEL/PUSH EXEC для выбора P EFECT, а затем нажмите на диск.
(4) Поверните диск SEL/PUSH EXEC для выбора нужного режима эффекта изображения, а затем нажмите на диск.
Индикатор будет изменяться следующим образом:
NEG.ART ←→ SEPIA ←→ B&W ←→ SOLARIZE
(5) Нажмите кнопку MENU, чтобы исчезли установки меню.



Watching a tape with special effects – Picture effect

Notes
- The picture effect function works only for tapes recorded in the Digital8 system.
- You cannot process externally input scenes using the picture effect function.
- You cannot record pictures that you have processed using the picture effect function with your VCR. To record pictures that you have processed using the picture effect function, record the pictures on the other VCR using your VCR as a player.

Pictures processed by the picture effect function
Pictures processed by the picture effect function are not output through the DV IN/OUT jack.

When you set the POWER switch to OFF or stop playback
The picture effect function is automatically cancelled.

Просмотр кассет со специальными эффектами – Эффект изображения

Примечания
- Функция эффекта изображения работает только для кассет, записанных в системе Digital8 .
- Вы не можете видоизменять изображения, введенные из внешнего источника, с помощью функции эффектов изображения.
- Вы не можете записывать изображения, которые были видоизменены с помощью функции эффекта изображения этого видеомагнитофона. Для записи изображений, которые были видоизменены с помощью функции эффектов изображения, запишите изображения на другой видеомагнитофон, используя этот видеомагнитофон в качестве плеера.

Изображения, видоизмененные с помощью функции эффектов изображения
Изображения, видоизмененные с помощью функции эффектов изображения, не передаются через гнездо DV IN/OUT.

При установке переключателя POWER в положение OFF или остановке воспроизведения
Функция эффектов изображения автоматически отключается.

Watching a tape with special performances – Digital effect

You can add special effects on playback images using the various digital functions.

STILL
You can play back a still image so that it is superimposed on a moving image.

FLASH (FLASH MOTION)
You can play back still images successively at constant intervals.

LUMI. (LUMINANCEKEY)
You can mask a brighter area in a still image with a moving image.

TRAIL
You can play back the image so that an incidental trailing image is left.

Просмотр кассет со специальными эффектами – Цифровой эффект

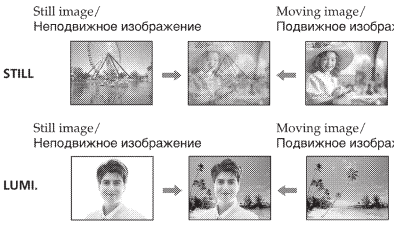
Вы можете добавлять специальные эффекты к воспроизводимому изображению с помощью различных цифровых функций.

STILL
Можно воспроизводить неподвижное изображение и накладывать его на подвижное изображение.

FLASH (FLASH MOTION)
Неподвижные изображения можно воспроизводить последовательно через постоянные интервалы.

LUMI. (LUMINANCEKEY)
Вы можете изменять яркие места на неподвижном изображении на подвижные изображения.

TRAIL
Вы можете воспроизводить изображение с эффектом запаздывания.



Watching a tape with special performances – Digital effect

(1) Press DIGITAL EFFECT during playback. The digital effect indicator appears.
(2) Turn the SEL/PUSH EXEC dial to select the desired digital effect mode.
The indicator changes as follows:
STILL ←→ FLASH ←→ LUMI. ←→ TRAIL
(3) Press the SEL/PUSH EXEC dial. The indicator lights up and the bars appear. In the STILL and LUMI. modes, the still image is stored in memory.
(4) Turn the SEL/PUSH EXEC dial to adjust the effect as follows:

STILL – The rate of the still image you want to superimpose on the moving image
FLASH – The interval of flash motion
LUMI. – The colour scheme of the area in the still image which is to be masked with a moving image
TRAIL – The vanishing time of the incidental image

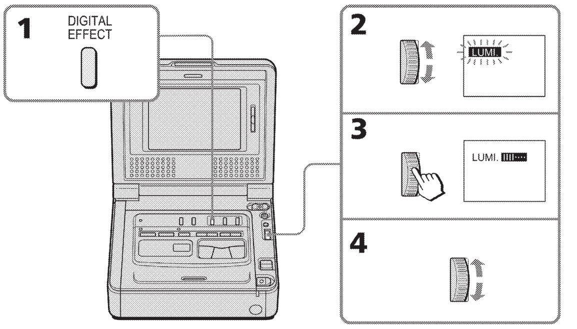
When the number of bars on the LCD screen getting bigger, the digital effect will be getting bigger.

Просмотр кассет со специальными эффектами – Цифровой эффект

(1) Нажмите кнопку DIGITAL EFFECT во время воспроизведения. Появится индикатор цифрового эффекта.
(2) Поверните диск SEL/PUSH EXEC для выбора режима нужного цифрового эффекта.
Индикатор будет изменяться следующим образом:
STILL ←→ FLASH ←→ LUMI. ←→ TRAIL
(3) Нажмите на диск SEL/PUSH EXEC. Высветится индикатор и появятся полосы. В режимах STILL и LUMI. неподвижное изображение будет сохранено в памяти.
(4) Поверните диск SEL/PUSH EXEC для регулировки изображения следующим образом:

STILL – Интенсивность неподвижного изображения, которое нужно наложить на подвижное изображение
FLASH – Интервал прерывистого движения
LUMI. – Цветовая гамма области неподвижного изображения, которую нужно заменить подвижным изображением
TRAIL – Время исчезновения побочного изображения

При увеличении числа полос на экране ЖКД цифровой эффект усилится.



To cancel the digital effect function
Press DIGITAL EFFECT again.

Для отмены функции цифровых эффектов
Нажмите кнопку DIGITAL EFFECT еще раз.

Watching a tape with special performances – Digital effect

Notes
- The digital effect function works only for tapes recorded in the Digital8 Ð system.
- You cannot process externally input scenes using the digital effect function.
- You cannot record images that you have processed using the digital effect function with your VCR. To record images that you have processed using the digital effect function, record the images on the other VCR using your VCR as a player.

Pictures processed by the digital effect function
Pictures processed by the digital effect function are not output through the ⅰ DV IN/OUT jack.

When you set the POWER switch to OFF or stop playback
The digital effect function is automatically cancelled.

Просмотр кассет со специальными эффектами – Цифровой эффект

Примечания
- Функция цифрового эффекта работает только для кассет, записанных в системе Digital8 Ð.
- Вы не можете видоизменять изображения, введенные из внешнего источника, с помощью функции цифровых эффектов.
- Вы не можете записывать изображения, которые были видоизменены с помощью функции цифрового эффекта этого видеомагнитофона. Для записи изображений, которые были видоизменены с помощью функции цифрового эффекта, запишите изображения на другой видеомагнитофон, используя этот видеомагнитофон в качестве плеера.

Изображения, видоизмененные с помощью функции цифровых эффектов
Изображения, видоизмененные с помощью функции цифровых эффектов, не передаются через гнездо ⅰ DV IN/OUT.

При установке переключателя POWER в положение OFF или остановке воспроизведения
Функция цифровых эффектов автоматически отключится.

Quickly locating a scene – Zero set memory

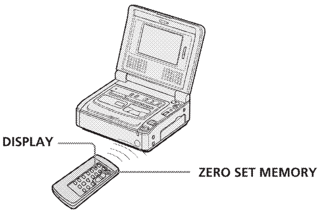
Your VCR goes forward or backward to stop automatically at a desired scene having a counter value of "0:00:00".
Use the Remote Commander supplied with a Sony digital video camera recorder for this operation.
For details, refer to the operating instructions of the digital video camera recorder.
Use this function, for example, to view a desired scene later on during playback.

(1) Press DISPLAY during playback.
(2) Press ZERO SET MEMORY on the Remote Commander at the point you want to locate later. The counter shows "0:00:00" and the ZERO SET MEMORY indicator flashes.
(3) Press ■ when you want to stop playback.
(4) Press ◀◀ to rewind the tape to the counter's zero point. The tape stops automatically when the counter reaches approximately zero. The ZERO SET MEMORY indicator disappears and the time code appears.
(5) Press ▶. Playback starts from the counter's zero point.

Быстрый поиск эпизода – Память нулевой отметки

Видеомагнитофон выполняет перемотку вперед или назад с автоматической остановкой на нужном эпизоде, где показание счетчика ленты равно "0:00:00".
Для этой операции используйте пульт дистанционного управления, поставляемый с цифровой видеокамерой Sony.
Подробные сведения см. в инструкции по эксплуатации цифровой видеокамеры.
Используйте эту функцию, например, для просмотра нужного эпизода позже во время воспроизведения.

(1) Нажмите кнопку DISPLAY во время воспроизведения.
(2) Нажмите кнопку ZERO SET MEMORY на пульте дистанционного управления в том месте, которое Вы захотите найти позже. Показание счетчика изменится на "0:00:00", и начнет мигать индикатор ZERO SET MEMORY.
(3) Нажмите кнопку ■, когда необходимо остановить воспроизведение.
(4) Нажмите кнопку ◀◀, чтобы перемотать ленту назад к нулевой точке счетчика ленты. Лента остановится автоматически, если счетчик достигнет приблизительно нулевой отметки. Индикатор ZERO SET MEMORY исчезнет, и появится код времени.
(5) Нажмите кнопку ▶. Воспроизведение начнется с нулевой отметки счетчика.



Quickly locating a scene – Zero set memory

Notes
- The zero set memory function works only for tapes recorded in the Digital8 Ð system.
- When you press ZERO SET MEMORY again before rewinding the tape, the zero set memory function is cancelled.
- There may be a discrepancy of several seconds from the time code.

If a tape has a blank portion between recorded portions
The zero set memory function may not work correctly.

Быстрый поиск эпизода – Память нулевой отметки

Примечания
- Функция памяти нулевой отметки работает только для кассет, записанных в системе Digital8 Ð.
- Если еще раз нажать кнопку ZERO SET MEMORY до начала перемотки ленты назад, то функция памяти нулевой отметки будет отменена.
- Между кодом времени и действительным временем может быть расхождение в несколько секунд.

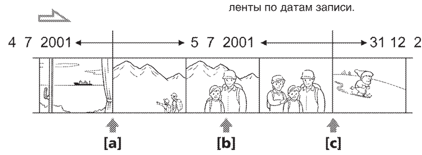
Если на записанной ленте имеются незаписанные участки
Функция памяти нулевой отметки может работать неверно.

Searching with recording date – Date search

You can automatically search for the point where the recording date changes and start playback from that point **(Date search)**. Use the Remote Commander supplied with a Sony digital video camera recorder for this operation.
For details, refer to the operating instructions of the digital video camera recorder.
Use this function to check where recording dates change or to edit the tape at each recording date.

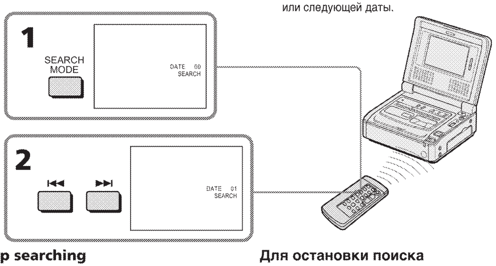
Поиск по дате записи – Поиск даты

Можно автоматически выполнять поиск места, где изменяется дата записи, и начинать воспроизведение с этого места **(поиск даты)**. Для этой операции используйте пульт дистанционного управления, поставляемый с цифровой видеокамерой Sony.
Подробные сведения см. в инструкции по эксплуатации цифровой видеокамеры.
Используйте эту функцию для проверки, где изменяются даты записи, или выполнения монтажа ленты по датам записи.



(1) Press SEARCH MODE on the Remote Commander repeatedly, until the date search indicator appears.
The indicator changes as follows:
DATE SEARCH → PHOTO SEARCH → PHOTO SCAN
(2) When the current position is **[b]**, press |◀◀ to search towards **[a]** or press ▶▶| to search towards **[c]**. Your VCR automatically starts playback at the point where the date changes.
Each time you press |◀◀ or ▶▶|, the VCR searches for the previous or next date.

(1) Нажимайте кнопку SEARCH MODE на пульте дистанционного управления, пока не появится индикатор поиска даты.
Индикатор будет изменяться следующим образом:
DATE SEARCH → PHOTO SEARCH → PHOTO SCAN
(2) Если лента находится в положении **[b]**, нажмите кнопку |◀◀ для поиска в направлении эпизода **[a]** или кнопку ▶▶| для поиска в направлении эпизода **[c]**. Видеомагнитофон автоматически начнет воспроизведение в том месте, где дата изменяется.
При каждом нажатии кнопки |◀◀ или ▶▶| видеомагнитофон выполняет поиск предыдущей или следующей даты.



To stop searching
Press ■.

Для остановки поиска
Нажмите кнопку ■.

Searching with recording date – Date search

Notes
- The date search works only for tapes recorded in the Digital8 system.
- The date search works only for tapes recorded with the date and time set.
- If one day's recording is less than two minutes, your VCR may not accurately find the point where the recording date changes.

If a tape has a blank portion between recorded portions
The date search function may not work correctly.

Поиск по дате записи – Поиск даты

Примечания
- Поиск по дате работает только для кассет, записанных в системе Digital8.
- Поиск по дате работает только для кассет, записанных с установкой даты и времени.
- Если продолжительность записи одного дня менее двух минут, видеомагнитофон может неточно найти место, где изменяется дата.

Если на записанной ленте имеются незаписанные участки
Функция поиска даты может работать неправильно.

Searching for a photo – Photo search/Photo scan

You can search for the still image recorded on a tape with a Sony digital video camera recorder **(photo search)**.
You can also search for still images one after another and display each image for five seconds automatically **(photo scan)**. Use the Remote Commander supplied with a Sony digital video camera recorder for these operations.
For details, refer to the operating instructions of a Sony digital video camera recorder.
Use these functions to check the still images or to edit only still images.

Searching for a photo

(1) Press SEARCH MODE on the Remote Commander repeatedly, until the photo search indicator appears.
The indicator changes as follows:
DATE SEARCH → PHOTO SEARCH → PHOTO SCAN

(2) Press ⏮ or ⏭ to select the photo for playback. Each time you press ⏮ or ⏭, your VCR searches for the previous or next photo. Your VCR automatically starts playback from the photo.

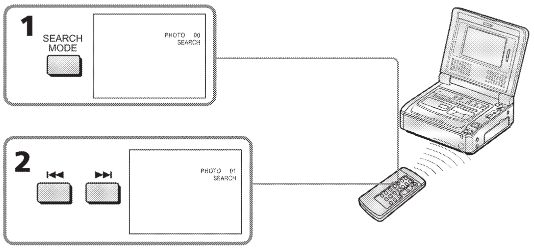
Поиск фото – Фотопоиск/Фотосканирование

Можно выполнить поиск неподвижного изображения, записанного на кассете с помощью цифровой видеокамеры Sony **(фотопоиск)**.
Можно также выполнять поиск неподвижных изображений поочередно и автоматически отображать каждое из них в течение пяти секунд **(фотосканирование)**. Для этих операций используйте пульт дистанционного управления, поставляемый с цифровой видеокамерой Sony.
Подробные сведения содержатся в инструкции по эксплуатации цифровой видеокамеры Sony.
Эти функции используются для проверки или редактирования только неподвижных изображений.

Поиск фото

(1) Нажимайте кнопку SEARCH MODE на пульте дистанционного управления, пока не появится индикатор поиска фото.
Индикатор будет изменяться следующим образом:
DATE SEARCH → PHOTO SEARCH → PHOTO SCAN

(2) Нажмите кнопку ⏮ или ⏭, чтобы выбрать фото для воспроизведения. При каждом нажатии кнопки ⏮ или ⏭ видеомагнитофон выполняет поиск предыдущего или следующего фото. Видеомагнитофон автоматически начнет воспроизведение с этого фото.



To stop searching
Press ■.

Для остановки поиска
Нажмите кнопку ■.

Searching for a photo – Photo search/Photo scan

Scanning photo

(1) Press SEARCH MODE on the Remote Commander repeatedly, until the photo scan indicator appears.
The indicator changes as follows:
DATE SEARCH → PHOTO SEARCH → PHOTO SCAN

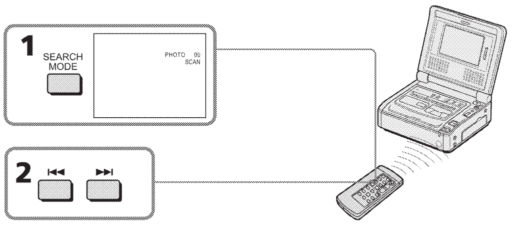
(2) Press ⏮ or ⏭.
Each photo is played back for about 5 seconds automatically.

Поиск фото – Фотопоиск/Фотосканирование

Сканирование фото

(1) Нажимайте кнопку SEARCH MODE на пульте дистанционного управления, пока не появится индикатор поиска фотосканирования.
Индикатор будет изменяться следующим образом:
DATE SEARCH → PHOTO SEARCH → PHOTO SCAN

(2) Нажмите кнопку ⏮ или ⏭.
Каждое фото будет автоматически отображаться примерно 5 секунд.



To stop scanning
Press ■.

Note
The photo search and photo scan functions work only for tapes recorded in the Digital8 system.

If a tape has a blank portion between recorded portions
The photo search and photo scan functions may not work correctly.

Для остановки сканирования
Нажмите кнопку ■.

Примечание
Функции фотопоиска и фотосканирования работают только для кассет, записанных в системе Digital8.

Если на записанной ленте имеются незаписанные участки
Функции фотопоиска и фотосканирования могут работать неправильно.

Displaying recording data and screen indicators – Data code function

When you play back tapes recorded by your VCR, you can check the recording date/time. Also, when you playback tapes recorded by a Digital8 system video camera recorder with the data code function, you can check the recording date/time and various settings when you have recorded.

Using the data code function

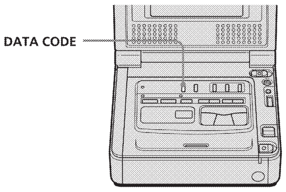
Your VCR automatically stores the date/time and the recording data used during the recording in the memory of the tape.

Отображение данных записи и экранных индикаторов – Функция кода данных

При воспроизведении кассет, записанных с помощью этого видеомагнитофона, можно проверить дату и время записи.
Кроме того, при воспроизведении кассет, записанных с помощью видеокамеры системы Digital8 с функцией кода данных, можно проверить дату и время записи, а также другие записанные параметры.

Использование функции кода данных

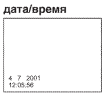
Данный видеомагнитофон автоматически записывает дату и время, а также все другие данные, используемые во время записи, в кассетную память.



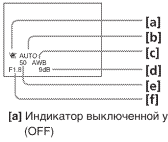
Press DATA CODE on your VCR.
The display changes as follows:
date/time → various settings (SteadyShot, exposure AUTO/MANUAL, white balance, gain, shutter speed, aperture value) → no indicator

Нажмите кнопку DATA CODE на видеомагнитофоне.
Индикация будет изменяться следующим образом:
дата/время → разные установки (устойчивая съемка, корректировка экспозиции AUTO/MANUAL, баланс белого, усиление, скорость затвора, величина диафрагмы) → без индикации

Date/time
дата/время



Various settings
Разные установки



[a] SteadyShot OFF indicator
[b] Exposure mode indicator
[c] White balance indicator
[d] Gain indicator
[e] Shutter speed indicator
[f] Aperture value

[a] Индикатор выключенной устойчивой съемки (OFF)
[b] Индикатор режима экспозиции
[c] Индикатор баланса белого
[d] Индикатор усиления
[e] Индикатор скорости затвора
[f] Величина диафрагмы

To not display various settings
Set DATA CODE to DATE in the menu settings (p. 67).
The display changes as follows:
date/time → no indicator

Для отмены отображения разных установок
Установите параметр DATA CODE в положение DATE в установках меню (стр. 67).
Индикация будет изменяться следующим образом:
дата/время → без индикации

Displaying recording data and screen indicators – Data code function

Note on the data code function
The data code function works only for tapes recorded in the Digital8 Ð system.

Recording data
Recording data is the information of your VCR or camcorder when you have recorded.

When you use the data code function, bars (--- -- ---- and --:--:--) appear if
- A blank section of the tape is being played back.
- The tape is unreadable due to tape damage or noise.
- The tape was recorded by a camcorder or your VCR without the date and time settings.

Data code
When you connect your VCR to the TV, the data code appears on the TV screen.

Отображение данных записи и экранных индикаторов – Функция кода данных

Примечания относительно функции кода данных
Функция кода данных работает только для кассет, записанных в системе Digital8 Ð.

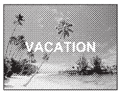
Записанные данные
Записанные данные - это информация о том, когда была выполнена запись видеомагнитофоном или камкордером.

При использовании функции кода данных появляются полосы (--- -- ---- и --:--:--), если
- Воспроизводится незаписанный участок на ленте.
- Лента не поддается считыванию из-за повреждений или помех.
- Запись на ленту была выполнена, когда в видеокамере или видеомагнитофоне не были установлены дата и время.

Код данных
Если видеомагнитофон подсоединить к телевизору, код данных также будет отображаться на экране телевизора.

Superimposing a title

You can select one of eight preset titles and two custom titles (p. 44). You can also select the language, colour, size, and position of titles.

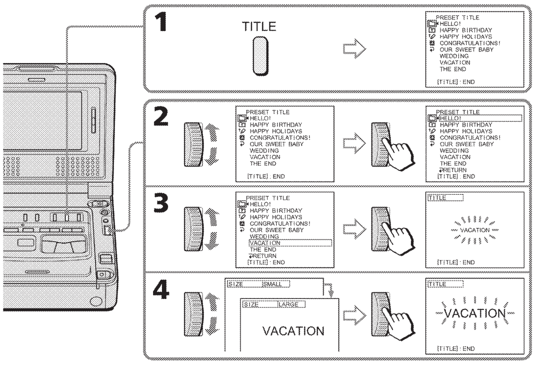


(1) Press TITLE to display the title menu.
(2) Turn the SEL/PUSH EXEC dial to select 🗀, then press the dial.
(3) Turn the SEL/PUSH EXEC dial to select the desired title, then press the dial. The titles are displayed in the language you selected.
(4) Change the colour, size, or position, if necessary.
  ① Turn the SEL/PUSH EXEC dial to select the colour, size, or position, then press the dial. The item appears.
  ② Turn the SEL/PUSH EXEC dial to select the desired item, then press the dial.
  ③ Repeat steps ① and ② until the title is laid out as desired.
(5) Turn the SEL/PUSH EXEC dial to select TITLE, then press the SEL/PUSH EXEC dial again to complete the setting.
(6) Press REC to start recording.
(7) When you want to stop recording the title, press TITLE.

Наложение титра

Вы можете выбрать один из восьми предварительно установленных и двух собственных титров (стр. 44). Можно также выбирать язык, цвет, размер и положение титров.

(1) Нажмите кнопку TITLE для отображения меню титров.
(2) Поверните диск SEL/PUSH EXEC для выбора установки 🗀, а затем нажмите на диск.
(3) Поверните диск SEL/PUSH EXEC для выбора нужного титра, затем нажмите на диск. Титры отображаются на выбранном языке.
(4) Измените цвет, размер или положение титра, если нужно.
  ① Поверните диск SEL/PUSH EXEC для выбора цвета, размера или положения, затем нажмите на диск. Появится элемент.
  ② Поверните диск SEL/PUSH EXEC для выбора нужного элемента, затем нажмите на диск.
  ③ Повторяйте пункты ① и ② до тех пор, пока титр не будет расположен надлежащим образом.
(5) Поверните диск SEL/PUSH EXEC для выбора TITLE, затем снова нажмите на диск SEL/PUSH EXEC для завершения установки.
(6) Нажмите кнопку REC для начала записи.
(7) Когда потребуется остановить запись титра, нажмите кнопку TITLE.



Superimposing a title

To superimpose the title while you are recording
Press TITLE while you are recording, and carry out steps 2 to 5. When you press the SEL/PUSH EXEC dial at step 5, the title is recorded.

To select the language of a preset title
If you want to change the language, select 🅰 before step 2. Then select the desired language and return to step 2.

To use the custom title
If you want to use the custom title, select 🅃 in step 2.

Title setting
- The title colour changes as follows :
  WHITE ←→ YELLOW ←→ VIOLET ←→ RED ←→ CYAN ←→ GREEN ←→ BLUE
- The title size changes as follows :
  SMALL ←→ LARGE
  You cannot input more than 12 characters in LARGE size.
- The title position changes as follows :
  1 ←→ 2 ←→ 3 ←→ 4 ←→ 5 ←→ 6 ←→ 7 ←→ 8 ←→ 9
  When the number of the title position getting larger, the title is positioned in getting lower on the LCD screen.
  When you select the title size to LARGE, you cannot choose position 9.

When you are selecting and setting the title
You cannot record the title displayed on the screen.

While you are playing back
You can superimpose a title. However, the title is not recorded on the tape.
You can record a title when you dub a tape by connecting your VCR to the other VCR with the A/V connecting cable. If you use the i. LINK cable (DV connecting cable) (not supplied) instead of the A/V connecting cable, you cannot record the title.

Наложение титра

Чтобы наложить титр во время записи
Нажмите кнопку TITLE во время записи и выполните пункты с 2 по 5. После нажатия на диск SEL/PUSH EXEC в пункте 5 начнется запись титра.

Чтобы выбрать язык предварительно установленного титра
Если необходимо изменить язык, выберите 🅰 перед выполнением пункта 2. Затем выберите необходимый язык и вернитесь к пункту 2.

Для использования собственного титра
Если нужно использовать собственный титр, выберите 🅃 в пункте 2.

Установка титра
- Цвет титра изменяется следующим образом:
  WHITE (БЕЛЫЙ) ←→ YELLOW (ЖЕЛТЫЙ) ←→ VIOLET (ФИОЛЕТОВЫЙ) ←→ RED (КРАСНЫЙ) ←→ CYAN (ГОЛУБОЙ) ←→ GREEN (ЗЕЛЕНЫЙ) ←→ BLUE (СИНИЙ)
- Размер титра изменяется следующим образом:
  SMALL (МАЛЕНЬКИЙ) ←→ LARGE (БОЛЬШОЙ)
  При LARGE размере нельзя ввести более 12 символов.
- Позиция титра изменяется следующим образом:
  1 ←→ 2 ←→ 3 ←→ 4 ←→ 5 ←→ 6 ←→ 7 ←→ 8 ←→ 9
  При увеличении номера позиции титра он будет располагаться ниже на экране ЖКД. Если выбран размер титра LARGE (большой), нельзя выбрать положение 9.

При выборе и установке титра
Запись титра, отображаемого на экране, невозможна.

Во время воспроизведения
Можно наложить титр. Однако, титр не записывается на ленту.
Титр можно записать во время перезаписи кассеты, подключив видеомагнитофон к другому видеомагнитофону с помощью соединительного кабеля аудио/видео. Если вместо соединительного кабеля аудио/видео используется кабель i.LINK (соединительный кабель DV) (не входит в комплект), запись титра невозможна.

Making your own titles

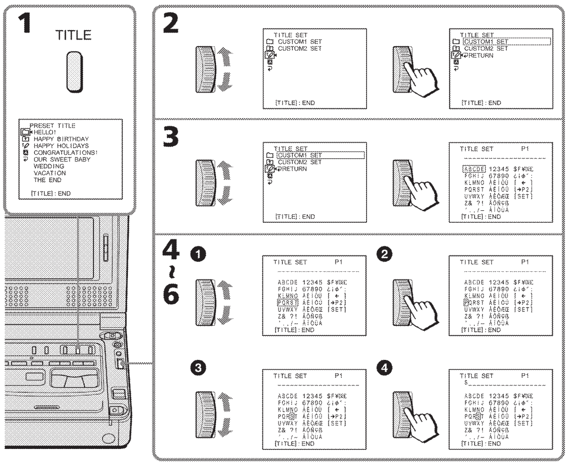
You can make up to two titles and store them in your VCR. Each title can have up to 20 characters.

(1) Press TITLE.
(2) Turn the SEL/PUSH EXEC dial to select ✎, then press the dial.
(3) Turn the SEL/PUSH EXEC dial to select the first line (CUSTOM1) or second line (CUSTOM2), then press the dial.
(4) Turn the SEL/PUSH EXEC dial to select the column of the desired character, then press the dial.
(5) Turn the SEL/PUSH EXEC dial to select the desired character, then press the dial.
(6) Repeat steps 4 and 5 until you have selected all characters and completed the title.
(7) To finish making your own titles, turn the SEL/PUSH EXEC dial to select [SET], then press the dial. The title is stored in memory.
(8) Press TITLE to make the title menu disappear.

Создание собственных титров

Можно создать не более двух титров и сохранить их в видеомагнитофоне. Каждый титр может содержать не более 20 символов.

(1) Нажмите кнопку TITLE.
(2) Поверните диск SEL/PUSH EXEC для выбора установки ✎, а затем нажмите на диск.
(3) Поверните диск SEL/PUSH EXEC для выбора первой строки (CUSTOM1) или второй строки (CUSTOM2), затем нажмите на диск.
(4) Поверните диск SEL/PUSH EXEC для выбора колонки с нужным символом, затем нажмите на диск.
(5) Поверните диск SEL/PUSH EXEC для выбора нужного символа, затем нажмите на диск.
(6) Повторяйте пункты 4 и 5 до тех пор, пока не будут выбраны все символы и полностью набран титр.
(7) Для завершения составления собственных титров поверните диск SEL/PUSH EXEC для выбора [SET], затем нажмите на диск. Титр будет сохранен в памяти.
(8) Нажмите кнопку TITLE, чтобы исчезло меню титров.



Making your own titles

To change a title you have stored
In step 3, select CUSTOM1 or CUSTOM2, depending on which title you want to change, then press the SEL/PUSH EXEC dial. Turn the SEL/PUSH EXEC dial to select [←], then press the dial to delete the title. The last character is erased. Enter the new title as desired.

If you select [→P2]
The menu for selecting alphabet and Russian characters appears. Select [→P1] to return to the previous screen.

To erase a character
Select [←]. The last character is erased.

To enter a space
Select [Z&   ?!], then select the blank space.

Создание собственных титров

Для изменения сохраненного в памяти титра
В пункте 3 выберите установку CUSTOM1 или CUSTOM2, в зависимости от того, какой титр нужно изменить, затем нажмите на диск SEL/PUSH EXEC. Поверните диск SEL/PUSH EXEC для выбора установки [←], а затем нажмите на диск для удаления титра. Последний символ будет удален. Введите требуемый новый титр.

Если выбрать элемент [→P2]
Появится меню для выбора русского алфавита. Выберите [→P1] для возврата в предыдущий экран.

Для удаления символа
Выберите [←]. Последний символ будет удален.

Для ввода пробела
Выберите [Z&   ?!], затем выберите пробел.

Dubbing a tape

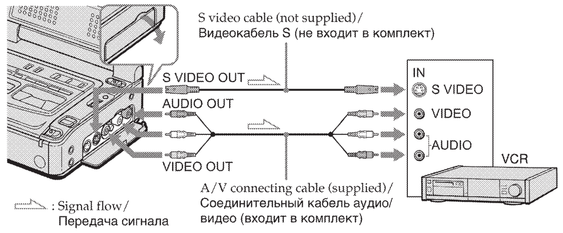
Using the A/V connecting cable
Connect your VCR to the other (recording) VCR using the A/V connecting cable supplied with your VCR.

(1) Insert a blank tape (or a tape you want to record over) into the other (recording) VCR, and insert the recorded tape into your (playback) VCR.
(2) Set the input selector on the other (recording) VCR to LINE. For details, refer to the operating instructions of the other (recording) VCR.
(3) Set the POWER switch to ON.
(4) Press ▷ PLAY to play back the recorded tape on your (playback) VCR.
(5) Start recording on the other (recording) VCR. For details, refer to the operating instructions of the other (recording) VCR.

Перезапись кассеты

Использование соединительного кабеля аудио/видео
Подсоедините свой видеомагнитофон к другому (записывающему) видеомагнитофону с помощью соединительного кабеля аудио/видео, который входит в комплект поставки видеомагнитофона.

(1) Вставьте незаписанную ленту (или ленту, на которую Вы хотите выполнить запись) в другой (записывающий) видеомагнитофон и вставьте записанную ленту в свой (воспроизводящий) видеомагнитофон.
(2) Установите селектор входного сигнала на другом (записывающем) видеомагнитофоне в положение LINE. Подробные сведения см. в инструкции по эксплуатации второго (записывающего) видеомагнитофона.
(3) Установите переключатель POWER в положение ON.
(4) Нажмите кнопку ▷ PLAY, чтобы начать воспроизведение записанной ленты на Вашем (воспроизводящем) видеомагнитофоне.
(5) Начните запись на другом (записывающем) видеомагнитофоне. Подробные сведения см. в инструкции по эксплуатации другого (записывающего) видеомагнитофона.


S video cable (not supplied)/
Видеокабель S (не входит в комплект)
S VIDEO OUT
AUDIO OUT
VIDEO OUT
IN
S VIDEO
VIDEO
AUDIO
VCR
A/V connecting cable (supplied)/
Соединительный кабель аудио/видео (входит в комплект)
: Signal flow/
Передача сигнала

When you have finished dubbing a tape
Press ■ on both your (playback) VCR and the other (recording) VCR.

Когда перезапись кассеты закончена
Нажмите кнопку ■ на Вашем (воспроизводящем) и другом (записывающем) видеомагнитофонах.

Dubbing a tape

Be sure to clear the indicators from the screen
If they are displayed, press the following buttons to not record the indicators on the dubbed tape
– DISPLAY
– DATA CODE

You can edit on VCRs that support the following systems:
8 8 mm, Hi8 Hi8, VHS VHS, SVHS S-VHS, VHSC VHSC, SVHSC S-VHSC, β Betamax, ED Beta ED Betamax, Mini DV mini DV, DV DV, or D8 Digital8

If the other (recording) VCR is a monaural type
Connect the yellow plug of the A/V connecting cable to the video input jack and the white plug to the audio input jack on the VCR. You do not need to connect the red plug. With this connection, the sound will be monaural.

If the other (recording) VCR has an S video jack
Connect using an S video cable (not supplied) to obtain high-quality pictures.
With this connection, you do not need to connect the yellow (video) plug of the A/V connecting cable.
Connect an S video cable (not supplied) to the S video jacks of both your (playback) VCR and the other (recording) VCR.

Перезапись кассеты

Обязательно отключите индикаторы на экране
Если они отображаются, нажмите следующие кнопки, чтобы не записывать индикаторы на перезаписываемую ленту
– DISPLAY
– DATA CODE

Монтаж можно выполнять на видеомагнитофонах, которые поддерживают следующие системы:
8 8 mm, Hi8 Hi8, VHS VHS, SVHS S-VHS, VHSC VHSC, SVHSC S-VHSC, β Betamax, ED Beta ED Betamax, Mini DV mini DV, DV DV или D8 Digital8

Если второй (записывающий) видеомагнитофон является монофоническим
Подсоедините желтый штекер соединительного кабеля аудио/видео к входному гнезду видеосигнала, а белый штекер - к входному гнезду аудиосигнала на видеомагнитофоне. Красный штекер подключать не нужно. При этом подключении звук будет монофоническим.

Если на другом (записывающем) видеомагнитофоне имеется видеогнездо S
Выполните соединение с помощью видеокабеля S (не входит в комплект) для получения высококачественного изображения.
При таком соединении не понадобится подключать желтый штекер (видео) соединительного кабеля аудио/видео.
Подсоедините видеокабель S (не входит в комплект) к видеогнездам S на Вашем (воспроизводящем) и другом (записывающем) видеомагнитофонах.

Dubbing a tape

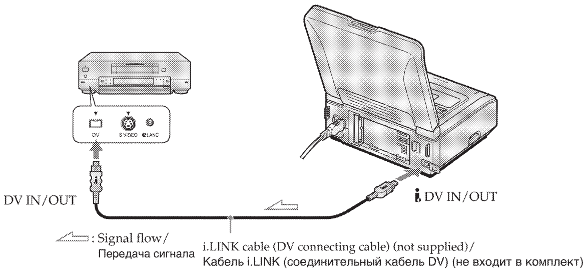
Using the i.LINK cable (DV connecting cable)
Simply connect the i.LINK cable (DV connecting cable) (not supplied) to i DV IN/OUT and to DV IN/OUT of the DV products. With digital-to-digital connection, video and audio signals are transmitted in digital form for high-quality editing. You cannot dub the screen indicators.

(1) Insert a blank tape (or a tape you want to record over) into the other (recording) VCR, and insert the recorded tape into your (playback) VCR.
(2) Set the input selector on the other (recording) VCR to DV IN if it is available. For details, refer to the operating instructions of the other (recording) VCR.
(3) Set the POWER switch to ON.
(4) Play back the recorded tape on your (playback) VCR.
(5) Start recording on the other (recording) VCR. For details, refer to the operating instructions of the other (recording) VCR.

Перезапись кассеты

Использование кабеля i.LINK (соединительный кабель DV)
Просто подсоедините кабель i.LINK (соединительный кабель DV) (не входит в комплект) к гнезду i DV IN/OUT и гнезду DV IN/OUT аппаратов DV. При использовании цифрового соединения видео- и аудиосигналы передаются в цифровом виде для последующего высококачественного монтажа. Экранные индикаторы не перезаписываются.

(1) Вставьте незаписанную ленту (или ленту, на которую Вы хотите выполнить запись) в другой (записывающий) видеомагнитофон и вставьте записанную ленту в свой (воспроизводящий) видеомагнитофон.
(2) Установите селектор входного сигнала на другом (записывающем) видеомагнитофоне в положение DV IN, если таковое имеется. Подробные сведения см. в инструкции по эксплуатации другого (записывающего) видеомагнитофона.
(3) Установите переключатель POWER в положение ON.
(4) Начните воспроизведение записанной ленты на Вашем (воспроизводящем) видеомагнитофоне.
(5) Начните запись на другом (записывающем) видеомагнитофоне.
Подробные сведения см. в инструкции по эксплуатации другого (записывающего) видеомагнитофона.


DV
S VIDEO
LANC
DV IN/OUT
i DV IN/OUT
: Signal flow/
Передача сигнала
i.LINK cable (DV connecting cable) (not supplied)/
Кабель i.LINK (соединительный кабель DV) (не входит в комплект)

When you have finished dubbing a tape
Press ■ on both your (playback) VCR and the other (recording) VCR.

Когда перезапись кассеты закончена
Нажмите кнопку ■ на Вашем (воспроизводящем) и другом (записывающем) видеомагнитофонах.

Dubbing a tape

Note on tapes that are not recorded in the Digital8 Ð system
The picture may fluctuate. This is not a malfunction.

During playback of tapes recorded in the Hi8/standard 8 system
Digital signals are output as the image signals from the i DV IN/OUT jack.

You can connect one VCR only using the i.LINK cable (DV connecting cable).
See page 81 for more information about i.LINK.

If you record a playback pause picture with the i DV IN/OUT jack
The recorded picture becomes rough. Also, when you play back the recorded pictures on other video equipment, the picture may jitter.

Перезапись кассеты

Примечание относительно кассет, которые записаны не в системе Digital8 Ð
Изображение может быть неустойчивым. Однако это не является неисправностью.

При воспроизведении кассет, записанных в системе Hi8/standard 8
Цифровые сигналы выдаются, как сигналы изображения, через гнездо i DV IN/OUT.

Вы можете подсоединить только один видеомагнитофон с помощью кабеля i.LINK (соединительный кабель DV).
Подробные сведения о i.LINK см. на стр. 81.

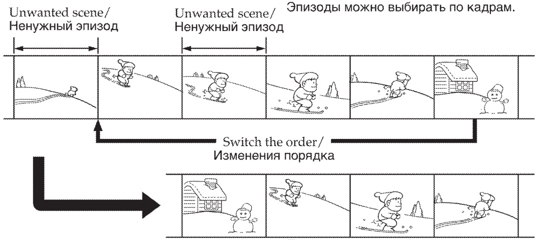
При записи неподвижного изображения через гнездо i DV IN/OUT
Записываемое изображение становится неровным. Кроме того, при воспроизведении записанного изображения на другой видеоаппаратуре оно может дрожать.

Dubbing only desired scenes – Digital program editing

Перезапись только нужных эпизодов – Цифровой монтаж по программе

You can duplicate selected scenes (programmes) for editing onto a tape without operating the other (recording) VCR.
Scenes can be selected by frame.

Можно дублировать на кассете выбранные для монтажа эпизоды (программы) без помощи другого (записывающего) видеомагнитофона.
Эпизоды можно выбирать по кадрам.


Unwanted scene/ Ненужный эпизод
Unwanted scene/ Ненужный эпизод
Switch the order/ Изменения порядка

Before operating the Digital program editing

Step 1 Connecting the other (recording) VCR (p. 50).
Step 2 Setting the other (recording) VCR for operation (p. 51).
Step 3 Adjusting the synchronicity of the other (recording) VCR (p. 57).

When you dub using the same (recording) VCR again, you can skip steps 2 and 3.

Using the Digital program editing function

Operation 1 Making the programme (p. 59).
Operation 2 Performing a Digital program editing (dubbing a tape) (p. 61).

Notes
- The Digital program editing works only for tapes recorded in the Digital8 Ð system.
- You cannot dub the display indicators.
- When you edit a digital video, the operation signals cannot be sent with LANC.
- When you confirm the set-up video screen, connect your (playing) VCR to a TV, or a monitor using the super laser link function.

Step 1: Connecting the other (recording) VCR

You can connect either the A/V connecting cable or the i.LINK cable (DV connecting cable).
When you use the A/V connecting cable, connect the devices as illustrated on page 46.
When you use the i.LINK cable (DV connecting cable), connect the devices as illustrated on page 48.

Перед началом цифрового монтажа по программе

Шаг 1 Подключение другого (записывающего) видеомагнитофона (стр. 50).
Шаг 2 Настройка другого (записывающего) видеомагнитофона для работы (стр. 51).
Шаг 3 Регулировка синхронности другого (записывающего) видеомагнитофона (стр. 57).

Если в дальнейшем перезапись выполняется с помощью того же (записывающего) видеомагнитофона, шаги 2 и 3 можно пропустить.

Использование функции цифрового монтажа по программе

Операция 1 Создание программы (стр. 59).
Операция 2 Выполнение цифрового монтажа по программе (перезапись кассеты) (стр. 61).

Примечания
- Функция цифрового монтажа по программе работает только для кассет, записанных в системе Digital8 Ð.
- Индикаторы на дисплее не перезаписываются.
- При монтаже цифрового видео сигналы управления невозможно пересылать через LANC.
- После выбора нужного видеоизображения подсоедините Ваш (воспроизводящий) видеомагнитофон к телевизору или монитору с помощью функции лазерного суперканала передачи сигналов.

Шаг 1: Подключение другого (записывающего) видеомагнитофона

Можно подключить соединительный кабель A/V или кабель i.LINK (соединительный кабель DV). При использовании соединительного кабеля A/V подключите устройства, как показано на странице 46. При использовании кабеля i.LINK (соединительный кабель DV) подключите устройства, как показано на стр. 48.

Dubbing only desired scenes – Digital program editing

Step 2: Setting the other (recording) VCR for operation - Using the A/V connecting cable

To edit using the other (recording) VCR, send the control signal by infrared ray to the remote sensor on the other (recording) VCR.
When you connect using the A/V connecting cable, follow the procedures below.

Setting the IR SETUP code

(1) Set the POWER switch to ON on your (playback) VCR.
(2) Turn the power of the other (recording) VCR on, then set the input selector to LINE.
When you connect a digital video camera recorder, set its POWER switch to VCR/VTR.
(3) Press MENU to display the menu settings.
(4) Turn the SEL/PUSH EXEC dial to select ETC, then press the dial.
(5) Turn the SEL/PUSH EXEC dial to select EDIT SET, then press the dial.
(6) Turn the SEL/PUSH EXEC dial to select CONTROL, then press the dial.
(7) Turn the SEL/PUSH EXEC dial to select IR, then press the dial.
(8) Turn the SEL/PUSH EXEC dial to select IR SETUP, then press the dial.
(9) Turn the SEL/PUSH EXEC dial to select the IR SETUP code of the other (recording) VCR (P.52), then press the dial.

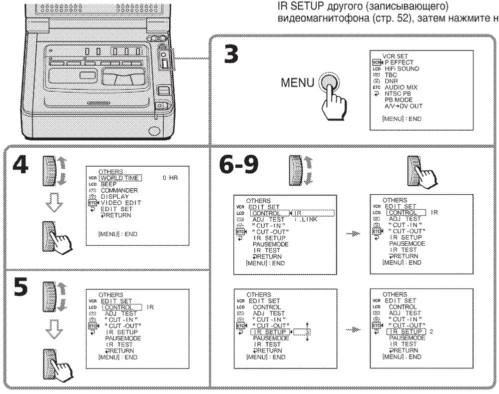
Перезапись только нужных эпизодов – Цифровой монтаж по программе

Шаг 2: Настройка другого (записывающего) видеомагнитофона для работы - Использование соединительного кабеля аудио/видео

Для выполнения монтажа с использованием другого (записывающего) видеомагнитофона можно посылать ИК-сигналы управления на его датчик дистанционного управления.
Если подключение производится с помощью соединительного аудио/видео кабеля, выполняйте процедуры, указанные ниже.

Установка кода IR SETUP

(1) Установите переключатель POWER в положение ON на (воспроизводящем) видеомагнитофоне.
(2) Включите питание другого (записывающего) видеомагнитофона и установите селектор входного сигнала в положение LINE.
При подсоединении цифровой видеокамеры установите ее переключатель POWER в положение VCR/VTR.
(3) Нажмите кнопку MENU для отображения установок меню.
(4) Поверните диск SEL/PUSH EXEC для выбора установки ETC, а затем нажмите на диск.
(5) Поверните диск SEL/PUSH EXEC для выбора EDIT SET, а затем нажмите на диск.
(6) Поверните диск SEL/PUSH EXEC для выбора CONTROL, а затем нажмите на диск.
(7) Поверните диск SEL/PUSH EXEC для выбора IR, а затем нажмите на диск.
(8) Поверните диск SEL/PUSH EXEC для выбора IR SETUP, а затем нажмите на диск.
(9) Поверните диск SEL/PUSH EXEC, чтобы выбрать код IR SETUP другого (записывающего) видеомагнитофона (стр. 52), затем нажмите на диск.



Dubbing only desired scenes – Digital program editing

Перезапись только нужных эпизодов – Цифровой монтаж по программе

About the IR SETUP code
The IR SETUP code is stored in the memory of your VCR. Be sure to set the correct code, depending on the other (recording) VCR. The default setting is code number 3.

Информация о коде IR SETUP
Код IR SETUP содержится в памяти видеомагнитофона. Установите правильный код, соответствующий другому (записывающему) видеомагнитофону. По умолчанию устанавливается код 3.

Brand Фирма-изготовитель	IR SETUP code Код IR SETUP
Sony	1, 2, 3, 4, 5, 6
Aiwa	47, 53, 54
Akai	62, 50, 74
Alba	73
Aristona	84
Baird	36, 30
Blaupunkt	83, 78
Bush	74
Canon	97
CGM	47, 83, 36
Clatronic	73
Daewoo	26
Ferguson	76
Fisher	73
Funai	80
Goldstar	47
Goodmans	26, 84
Grundig	83, 9
Hitachi	42, 56
ITT/Nokia Instant	36
JVC	12, 14, 15, 11, 21
Kendo	47
Loewe	16, 47, 84
Luxor	89
Mark	26*
Matsui	47, 60, 58*
Mitsubishi	28, 29
Nokia	89, 36
Nokia Oceanic	89
Nordmende	76
Okano	60, 62, 63
Orion	70, 58*
Panasonic	16, 78, 96
Philips	83, 84, 86
Phonola	83, 84
Roadstar	47
SABA	76, 21
Samsung	93, 94, 52, 22
Sanyo	36
Schneider	84, 10
SEG	73
Seleco	47, 74
Sharp	89, 98
Siemens	10, 36
Tandberg	26
Telefunken	91, 92
Tensai	73
Thomson	76, 100
Thorn	36, 47
Toshiba	40
Universum	92, 70, 47
W.W. House	47
Watoson	83, 58

* TV/VCR component/компонент телевизора/видеомагнитофона

Note on the IR SETUP code
The Digital program editing does not work if the VCR is not corresponded to IR SETUP codes.

Примечание относительно кода IR SETUP
Функция цифрового монтажа по программе не работает, если видеомагнитофон не соответствует кодам IR SETUP.

Dubbing only desired scenes – Digital program editing

Setting the modes to cancel the recording pause on the other (recording) VCR

(1) Turn the SEL/PUSH EXEC dial to select PAUSEMODE, then press the dial.

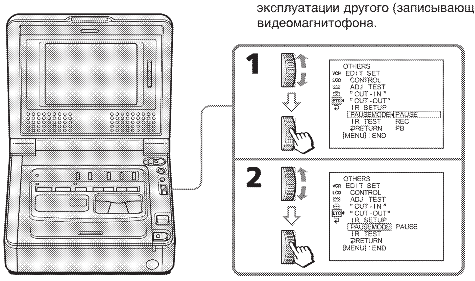
(2) Turn the SEL/PUSH EXEC dial to select the mode to cancel recording pause on the other (recording) VCR, then press the dial.
The correct button depends on the other (recording) VCR.
Refer to the operating instructions of the other (recording) VCR.

Перезапись только нужных эпизодов – Цифровой монтаж по программе

Установка режимов для отмены паузы при записи на другом (записывающем) видеомагнитофоне

(1) Поверните диск SEL/PUSH EXEC для выбора PAUSEMODE, а затем нажмите на диск.

(2) Поверните диск SEL/PUSH EXEC, чтобы выбрать режим для отмены паузы при записи на другом (записывающем) видеомагнитофоне, а затем нажмите на диск.
Выбор правильной кнопки зависит от другого (записывающего) видеомагнитофона.
Обратитесь к инструкциям по эксплуатации другого (записывающего) видеомагнитофона.


1
OTHERS
VCR EDIT SET
LCD CONTROL
ADJ TEST
"CUT-IN"
ETC "CUT-OUT"
IR SETUP
PAUSEMODE PAUSE
IR TEST REC
RETURN PB
[MENU] : END
2
OTHERS
VCR EDIT SET
LCD CONTROL
ADJ TEST
"CUT-IN"
ETC "CUT-OUT"
IR SETUP
PAUSEMODE PAUSE
IR TEST
RETURN
[MENU] : END

The buttons to cancel recording pause on the other (recording) VCR
Select the buttons when you cancel recording pause on the other (recording) VCR, and start recording.
The buttons vary depending on the other (recording) VCR. To cancel recording pause
- Select "PAUSE" if the button to cancel recording pause is ▮▮.
- Select "REC" if the button to cancel recording pause is ●.
- Select "PB" if the button to cancel recording pause is ▶.

Кнопки для отмены паузы при записи на другом (записывающем) видеомагнитофоне
Выберите эти кнопки при отмене паузы при записи на другом (записывающем) видеомагнитофоне и начните запись.
Кнопки могут быть разными в зависимости от модели (записывающего) видеомагнитофона.
Для отмены паузы при записи
- Выберите "PAUSE", если кнопка для отмены паузы при записи - ▮▮.
- Выберите "REC", если кнопка для отмены паузы записи - ●.
- Выберите "PB", если кнопка для отмены паузы записи - ▶.

Dubbing only desired scenes – Digital program editing

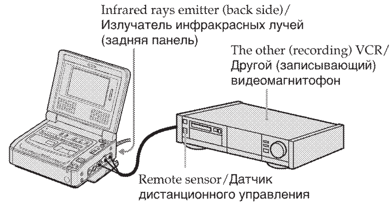
Setting your (playback) VCR and the other (recording) VCR to face each other

Locate the infrared rays emitter of your (playback) VCR to face it towards the remote sensor of the other (recording) VCR.
Set the devices more than 30 cm (12 in.) apart, and remove any obstacles between the devices.

Перезапись только нужных эпизодов – Цифровой монтаж по программе

Установите этот (воспроизводящий) и другой (записывающий) видеомагнитофоны так, чтобы они находились друг против друга

Инфракрасный излучатель этого (воспроизводящего) видеомагнитофона необходимо направить на датчик дистанционного управления другого (записывающего) видеомагнитофона.
Установите устройства на расстоянии более 30 см друг от друга и устраните любые препятствия между ними.


Infrared rays emitter (back side)/
Излучатель инфракрасных лучей (задняя панель)
The other (recording) VCR/
Другой (записывающий) видеомагнитофон
Remote sensor/Датчик дистанционного управления

Dubbing only desired scenes – Digital program editing

Confirming the other (recording) VCR operation

(1) Insert a recordable tape into the other (recording) VCR, then set to recording pause.

(2) Turn the SEL/PUSH EXEC dial to select IR TEST, then press the dial.

(3) Turn the SEL/PUSH EXEC dial to select EXECUTE, then press the dial.
If the other (recording) VCR starts recording, the setting is correct.
When finished, the indicator changes to COMPLETE.

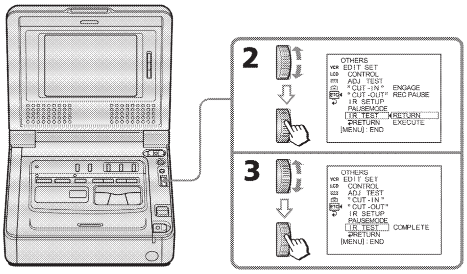
Перезапись только нужных эпизодов – Цифровой монтаж по программе

Проверка работы другого (записывающего) видеомагнитофона

(1) Вставьте кассету для записи в другой (записывающий) видеомагнитофон, затем установите режим паузы записи.

(2) Поверните диск SEL/PUSH EXEC для выбора IR TEST, а затем нажмите на диск.

(3) Поверните диск SEL/PUSH EXEC для выбора установки EXECUTE, затем нажмите на диск.
Если другой (записывающий) видеомагнитофон производит запись, это означает правильную настройку.
По окончании индикатор изменится на COMPLETE.


2
OTHERS
VCR EDIT SET
LCD CONTROL
ADJ TEST
"CUT-IN" ENGAGE
ETC "CUT-OUT" REC PAUSE
IR SETUP
PAUSEMODE
IR TEST RETURN
RETURN EXECUTE
[MENU] : END
3
OTHERS
VCR EDIT SET
LCD CONTROL
ADJ TEST
"CUT-IN"
ETC "CUT-OUT"
IR SETUP
PAUSEMODE
IR TEST COMPLETE
RETURN
[MENU] : END

If the other (recording) VCR operates correctly

Skip to step 3 on page 57.

If the other (recording) VCR does not operate correctly
- Set the IR SETUP code, or select the button to cancel the recording pause on the other (recording) VCR.
- Place your (playback) VCR at least 30 cm (12 in.) away from the other (recording) VCR.
- Refer to the operating instructions of the other (recording) VCR.

Если другой (записывающий) видеомагнитофон работает правильно

Перейдите к шагу 3 на стр. 57.

Если другой (записывающий) видеомагнитофон работает неправильно
- Установите код IR SETUP или выберите кнопку для отмены паузы при записи на другом (записывающем) видеомагнитофоне.
- Установите (воспроизводящий) видеомагнитофон на расстоянии не менее 30 см от другого (записывающего) видеомагнитофона.
- Обратитесь к инструкциям по эксплуатации другого (записывающего) видеомагнитофона.

Dubbing only desired scenes – Digital program editing

Step 2: Setting the other (recording) VCR for operation - Using the i.LINK cable (DV connecting cable)

When you connect using the i.LINK cable (DV connecting cable) (not supplied), follow the procedures below.

(1) Set the POWER switch to ON on your (playback) VCR .

(2) Turn the power of the other (recording) VCR on, then set the input selector to DV input.
When you connect a digital video camera recorder, set its POWER switch to VCR/VTR.

(3) Press MENU to display the menu settings.

(4) Turn the SEL/PUSH EXEC dial to select ETC, then press the dial.

(5) Turn the SEL/PUSH EXEC dial to select EDIT SET, then press the dial.

(6) Turn the SEL/PUSH EXEC dial to select CONTROL, then press the dial.

(7) Turn the SEL/PUSH EXEC dial to select i.LINK, then press the dial.

Перезапись только нужных эпизодов – Цифровой монтаж по программе

Шаг 2: Настройка другого (записывающего) видеомагнитофона для работы - Использование кабеля i.LINK (соединительный кабель DV)

При выполнении соединения с помощью кабеля i.LINK (соединительный кабель DV) (не входит в комплект) выполняйте процедуры, указанные ниже.

(1) Установите переключатель POWER в положение ON на этом (воспроизводящем) видеомагнитофоне.

(2) Включите питание другого (записывающего) видеомагнитофона и установите селектор входного сигнала в положение DV.
При подсоединении цифровой видеокамеры установите ее переключатель POWER в положение VCR/VTR.

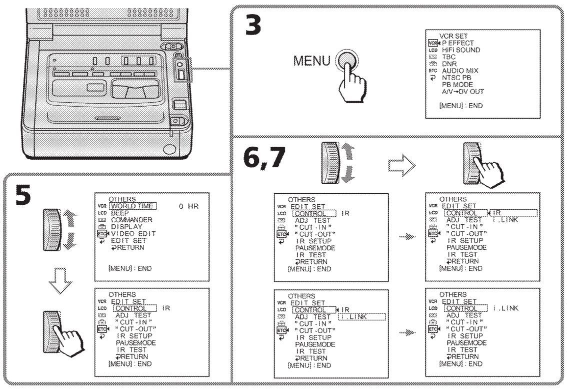
(3) Нажмите кнопку MENU для отображения установок меню.

(4) Поверните диск SEL/PUSH EXEC для выбора установки ETC, а затем нажмите на диск.

(5) Поверните диск SEL/PUSH EXEC для выбора EDIT SET, а затем нажмите на диск.

(6) Поверните диск SEL/PUSH EXEC для выбора CONTROL, а затем нажмите на диск.

(7) Поверните диск SEL/PUSH EXEC для выбора i.LINK, а затем нажмите на диск.


3
MENU
VCR SET
VCR P EFFECT
LCD HiFi SOUND
TBC
DNR
ETC AUDIO MIX
NTSC PB
PB MODE
A/V→DV OUT
[MENU] : END
5
OTHERS
VCR WORLD TIME 0 HR
LCD BEEP
COMMANDER
DISPLAY
ETC VIDEO EDIT
EDIT SET
RETURN
[MENU] : END
OTHERS
VCR EDIT SET
LCD CONTROL IR
ADJ TEST
"CUT-IN"
ETC "CUT-OUT"
IR SETUP
PAUSEMODE
IR TEST
RETURN
[MENU] : END
6,7
OTHERS
VCR EDIT SET
LCD CONTROL IR
ADJ TEST
"CUT-IN"
ETC "CUT-OUT"
IR SETUP
PAUSEMODE
IR TEST
RETURN
[MENU] : END
OTHERS
VCR EDIT SET
LCD CONTROL IR
ADJ TEST i.LINK
"CUT-IN"
ETC "CUT-OUT"
IR SETUP
PAUSEMODE
IR TEST
RETURN
[MENU] : END
OTHERS
VCR EDIT SET
LCD CONTROL IR
ADJ TEST i.LINK
"CUT-IN"
ETC "CUT-OUT"
IR SETUP
PAUSEMODE
IR TEST
RETURN
[MENU] : END
OTHERS
VCR EDIT SET
LCD CONTROL i.LINK
ADJ TEST
"CUT-IN"
ETC "CUT-OUT"
IR SETUP
PAUSEMODE
IR TEST
RETURN
[MENU] : END

If you connect using the i.LINK cable (DV connecting cable)
With digital-to-digital connection, video and audio signals are transmitted in digital form for high-quality editing.

Если подключение производится с помощью кабеля i.LINK (соединительный кабель DV)
При использовании цифрового соединения видео- и аудиосигналы передаются в цифровом виде для последующего высококачественного монтажа.

Dubbing only desired scenes – Digital program editing

Step 3: Adjusting the synchronicity of the other (recording) VCR

You can adjust the synchronicity of your (playback) VCR and the other (recording) VCR. First, eject the tape from your (playback) VCR. Have a pen and paper ready for notes.

(1) Insert a blank tape (or a tape you want to record over) into the other (recording) VCR, then set to recording pause.
When you select i.LINK in CONTROL, the above procedure is not necessary.
(2) Turn the SEL/PUSH EXEC dial to select ADJ TEST, then press the dial.
(3) Turn the SEL/PUSH EXEC dial to select EXECUTE, then press the dial.
IN and OUT are recorded on the image for five times each to calculate the numerical values for adjusting the synchronicity.
The EXECUTING indicator flashes on the LCD screen. When finished, the indicator changes to COMPLETE.
(4) Rewind the tape in the other (recording) VCR, then start slow playback.
Take a note of the opening numerical value of each IN and the closing numerical value of each OUT.
(5) Calculate the average of all the opening numerical values of each IN, and the average of all the closing numerical values of each OUT.
(6) Turn the SEL/PUSH EXEC dial to select "CUT-IN", then press the dial.
(7) Turn the SEL/PUSH EXEC dial to select the average numerical value of IN, then press the dial.
The calculated start position for recording is set.
(8) Turn the SEL/PUSH EXEC dial to select "CUT-OUT", then press the dial.
(9) Turn the SEL/PUSH EXEC dial to select the average numerical value of OUT, then press the dial.
The calculated stop position for recording is set.
(10) Turn the SEL/PUSH EXEC dial to select RETURN, then press the dial.

Перезапись только нужных эпизодов – Цифровой монтаж по программе

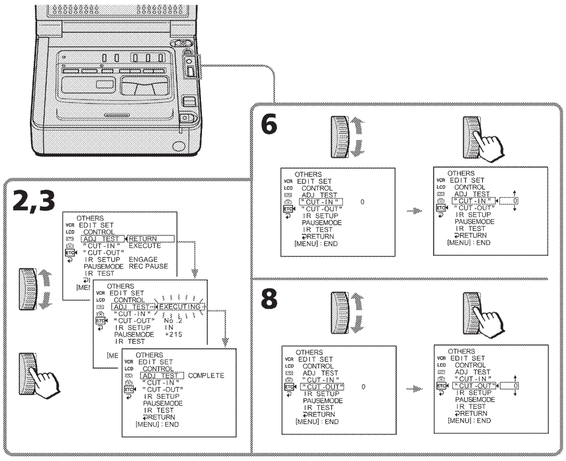
Шаг 3: Регулировка синхронности другого (записывающего) видеомагнитофона

Можно отрегулировать синхронность этого (воспроизводящего) и другого (записывающего) видеомагнитофона.
Сначала извлеките кассету из этого (воспроизводящего) видеомагнитофона.
Приготовьте ручку и бумагу для заметок.

(1) Вставьте чистую кассету (или кассету, на которую нужно выполнить запись) в другой (записывающий) видеомагнитофон, затем установите режим паузы записи.
При выборе i.LINK в переключателе CONTROL описанная выше процедура является необязательной.
(2) Поверните диск SEL/PUSH EXEC для выбора ADJ TEST, а затем нажмите на диск.
(3) Поверните диск SEL/PUSH EXEC для выбора установки EXECUTE, затем нажмите на диск.
На изображение запишутся по пять меток IN и OUT, позволяющих рассчитать числовые значения для регулировки синхронности.
На экране ЖКД мигает индикатор EXECUTING. По окончании индикатор изменится на COMPLETE.
(4) Перемотайте кассету в другом (записывающем) видеомагнитофоне на начало, затем включите замедленное воспроизведение.
Обратите внимание на начальное числовое значение каждой метки IN и конечное числовое значение каждой метки OUT.
(5) Рассчитайте среднее значение всех начальных числовых значений каждой метки IN, а также среднее значение всех конечных числовых значений каждой метки OUT.
(6) Поверните диск SEL/PUSH EXEC для выбора "CUT-IN", а затем нажмите на диск.
(7) Поверните диск SEL/PUSH EXEC для выбора среднего числового значения IN, затем нажмите на диск.
Рассчитанное начальное положение для записи установлено.
(8) Поверните диск SEL/PUSH EXEC для выбора "CUT-OUT", а затем нажмите на диск.
(9) Поверните диск SEL/PUSH EXEC для выбора среднего числового значения OUT, затем нажмите на диск.
Рассчитанное конечное положение для записи установлено.
(10) Поверните диск SEL/PUSH EXEC для выбора RETURN, а затем нажмите на диск.

Dubbing only desired scenes – Digital program editing

Перезапись только нужных эпизодов – Цифровой монтаж по программе



Notes
- If you start recording from the very beginning of the tape, the first few seconds of the tape may not be recorded properly. Be sure to allow about 10 seconds' lead before starting the recording.
- When you complete step 3, the image to adjust the syncronicity is recorded for about 50 seconds.

When you connect with the i.LINK cable (DV connecting cable)
You may not be able to operate the dubbing function correctly, depending on the other VCR. Keep the i.LINK connection, and follow the procedure from step 2 on page 51.

Примечания
- Если запись начинается с самого начала кассеты, то первые несколько секунд на ленту может записываться изображение неудовлетворительного качества. Прежде чем начать запись, необходимо пропустить приблизительно 10 секунд на ленте.
- По завершении шага 3 изображение для регулировки синхронности записывается в течение 50 секунд.

При подключении с помощью кабеля i.LINK (соединительный кабель DV)
Функция перезаписи может работать неправильно в зависимости от другого видеомагнитофона. Не отключая соединение с помощью кабеля i.LINK, выполните процедуру из пункта 2 на стр. 51.

Dubbing only desired scenes – Digital program editing

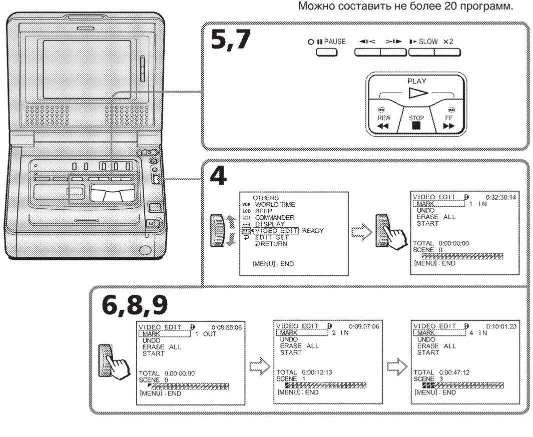
Operation 1: Making the programme

(1) Insert the tape for playback into your (playback) VCR, and insert a tape for recording into the other (recording) VCR.
(2) Press MENU to display the menu settings.
(3) Turn the SEL/PUSH EXEC dial to select ETC, then press the dial.
(4) Turn the SEL/PUSH EXEC dial to select VIDEO EDIT, then press the dial.
(5) Search for the beginning of the first scene you want to insert using the video operation buttons, then press ❚❚ to suspend playback momentarily (p. 14).
(6) Press the SEL/PUSH EXEC dial.
The IN point of the first programme is set, and the top part of the programme mark changes to light blue.
(7) Search for the end of the first scene you want to insert using the video operation buttons, then press ❚❚ to suspend playback momentarily.
(8) Press the SEL/PUSH EXEC dial.
The OUT point of the first programme is set, then the bottom part of the programme mark changes to light blue.
(9) Repeat steps 5 to 8, then set programme.
When the programme is set, the programme mark changes to light blue.
You can set a maximum of 20 programmes.

Перезапись только нужных эпизодов – Цифровой монтаж по программе

Операция 1: Создание программы

(1) Вставьте кассету, с которой необходимо сделать запись, в этот (воспроизводящий) видеомагнитофон, а кассету для записи - в другой (записывающий) видеомагнитофон.
(2) Нажмите кнопку MENU для отображения установок меню.
(3) Поверните диск SEL/PUSH EXEC для выбора установки ETC, а затем нажмите на диск.
(4) Поверните диск SEL/PUSH EXEC для выбора VIDEO EDIT, затем нажмите на диск.
(5) С помощью кнопок управления видео найдите начало первого эпизода, который Вы хотите вставить, затем нажмите ❚❚, чтобы на время приостановить воспроизведение (стр. 14).
(6) Нажмите на диск SEL/PUSH EXEC.
Место начала IN первого запрограммированного эпизода установлено, и цвет верхнего индикатора метки программы меняется на светло-голубой.
(7) С помощью кнопок управления видео найдите конец первого эпизода, который Вы хотите вставить, и нажмите кнопку ❚❚, чтобы ненадолго прервать воспроизведение.
(8) Нажмите на диск SEL/PUSH EXEC.
Место окончания OUT первого запрограммированного эпизода установлено, и цвет нижнего индикатора метки программы меняется на светло-голубой.
(9) Повторите пункты с 5 по 8, затем завершите программирование.
После завершения программирования цвет индикатора метки программы меняется на светло-голубой.
Можно составить не более 20 программ.



Dubbing only desired scenes – Digital program editing

Erasing the programme you have set

Erase OUT first and then IN from the last programme.

(1) Turn the SEL/PUSH EXEC dial to select UNDO, then press the dial.
(2) Turn the SEL/PUSH EXEC dial to select EXECUTE, then press the dial.
The last set programme mark flashes, then the setting is cancelled.

To cancel erasing
Select RETURN in step 2, then press the dial.

Erasing all programmes

(1) Select VIDEO EDIT in ETC in the menu settings.
(2) Turn the SEL/PUSH EXEC dial to select ERASE ALL, then press the dial.
(3) Turn the SEL/PUSH EXEC dial to select EXECUTE, then press the dial.
All the programme marks flash, then the settings are cancelled.

To cancel erasing all programmes
Select RETURN in step 3, then press the dial.

To cancel a programme you have set
Press MENU.
The programme is stored in memory until the tape is ejected.

You cannot set IN and OUT when
- You use a tape that is recorded in other than Digital8 system.
- The tape has a blank portion.

The total time code may not be displayed correctly when
- You use a tape that is recorded in other than Digital8 system.
- There is a blank portion between IN and OUT on the tape.

When you select PB MODE to Hi8/8 in the menu settings
You cannot operate the Digital program editing.

Перезапись только нужных эпизодов – Цифровой монтаж по программе

Удаление заданной программы

Сначала удалите метку OUT, а затем метку IN последнего запрограммированного эпизода.

(1) Поверните диск SEL/PUSH EXEC для выбора UNDO, а затем нажмите на диск.
(2) Поверните диск SEL/PUSH EXEC для выбора установки EXECUTE, затем нажмите на диск.
Индикатор последнего запрограммированного эпизода начнет мигать, и установки для этого эпизода сбросятся.

Для отмены удаления
Выберите RETURN в пункте 2, затем нажмите на диск.

Удаление из программы всех запрограммированных эпизодов

(1) Выберите VIDEO EDIT в ETC в установках меню.
(2) Поверните диск SEL/PUSH EXEC для выбора ERASE ALL, а затем нажмите на диск.
(3) Поверните диск SEL/PUSH EXEC для выбора установки EXECUTE, затем нажмите на диск.
Все индикаторы запрограммированных эпизодов начнут мигать, и установки сбросятся.

Для отмены удаления всех запрограммированных эпизодов
Выберите RETURN в пункте 3, затем нажмите на диск.

Для отмены программы
Нажмите кнопку MENU.
Программа хранится в памяти до момента извлечения кассеты.

Невозможно установить метки IN и OUT, если
- Используется кассета с записью, выполненной не в системе Digital8.
- На ленте имеется незаписанный участок.

Код общего времени может отображаться неправильно, если
- Используется кассета с записью, выполненной не в системе Digital8.
- На кассете есть незаписанный участок между метками IN и OUT.

При выборе значения Hi8/8 для PB MODE в установках меню
Невозможно выполнять цифровой монтаж по программе.

Dubbing only desired scenes – Digital program editing

Operation 2: Performing a Digital program editing (dubbing a tape)

Make sure both your (playback) VCR and the other (recording) VCR are connected, and that the other (recording) VCR is set to recording pause. When you use the i.LINK cable (DV connecting cable) the following procedure is not necessary.
When you use a digital video camera recorder, set its POWER switch to VCR/VTR.

(1) Select VIDEO EDIT in ETC in the menu settings.
(2) Turn the SEL/PUSH EXEC dial to select START, then press the dial.
(3) Turn the SEL/PUSH EXEC dial to select EXECUTE, then press the dial.
Search for the beginning of the first programme, then start dubbing.
The programme mark flashes.
The SEARCH indicator appears during search on the LCD screen.
The programme indicator changes to light blue after the dubbing is complete.

When the dubbing ends, both your (playback) VCR and the other (recording) VCR automatically stop.

To stop dubbing
Press ■ using the video operation buttons.

To end the Digital program editing function
Your (playback) VCR stops when the dubbing is complete. Then the display returns to VIDEO EDIT in the menu settings.
Press MENU to end the Digital program editing function.

You cannot record on the other VCR when
- The cassette is not inserted.
- The tape has run out.
- The write-protect tab is set to expose the red mark.
- The IR SETUP code is not correct. (When IR is selected.)
- The button to cancel recording pause is not correct. (When IR is selected.) (p. 53)
- The programmes to operate the Digital program editing have not been made.
- i.LINK is selected but the i.LINK cable (DV connecting cable) is not connected.
- The power of the other (recording) VCR is not turned on.

Перезапись только нужных эпизодов – Цифровой монтаж по программе

Операция 2: Выполнение цифрового монтажа по программе (перезапись кассеты)

Убедитесь, что этот (воспроизводящий) и другой (записывающий) видеомагнитофоны подключены друг к другу, а другой (записывающий) видеомагнитофон включен в режим паузы при записи. При использовании кабеля i.LINK (соединительный кабель DV) описанная ниже процедура является необязательной.
При записи на цифровую видеокамеру установите ее переключатель POWER в положение VCR/VTR.

(1) Выберите VIDEO EDIT в ETC в установках меню.
(2) Поверните диск SEL/PUSH EXEC для выбора START, а затем нажмите на диск.
(3) Поверните диск SEL/PUSH EXEC для выбора установки EXECUTE, затем нажмите на диск.
Найдите начало первого запрограммированного эпизода и начните перезапись.
Замигает индикатор программы.
Во время поиска на экране ЖКД появляется индикатор SEARCH.
После завершения перезаписи цвет индикатора программы меняется на светло-голубой.

По окончании перезаписи этот (воспроизводящий) и другой (записывающий) видеомагнитофоны автоматически останавливаются.

Для остановки перезаписи
Нажмите ■ с помощью кнопок управления видео.

Чтобы отключить функцию цифрового монтажа программы
Этот (воспроизводящий) видеомагнитофон останавливается по завершении перезаписи. Затем на дисплее снова появляется команда VIDEO EDIT в установках меню.
Нажмите кнопку MENU для отключения функции монтажа программы.

На другой видеомагнитофон не удастся произвести запись, если
- Не вставлена кассета.
- Закончилась лента.
- Лепесток защиты записи установлен так, что видна красная метка.
- Неправильный код IR SETUP. (Когда выбран IR.)
- Кнопка для отмены паузы при записи является неверной. (Когда выбран IR.) (стр. 53)
- Не создана программа управления функцией цифрового монтажа по программе.
- Выбрана установка i.LINK, но кабель i.LINK (соединительный кабель DV) не подключен.
- Другой (записывающий) видеомагнитофон не включен.

Using with an analogue video unit and a personal computer – Signal convert function

You can convert analogue video signals into digital video signals via your VCR connected to a personal computer and analog video unit.

Capturing images and sound from an analogue video unit

Analogue video signals → Digital video signals

(1) Set the POWER switch to ON.
(2) Set A/V → DV OUT to ON in VCR in the menu settings (p. 67).
"A/V → DV" appears on the LCD screen.
(3) Start playback on the analogue video unit.
(4) Start capturing procedures on your personal computer.
The operation procedures depend on your personal computer and the software which you use.
For details on how to capture images, refer to the instruction manual of your personal computer and software.

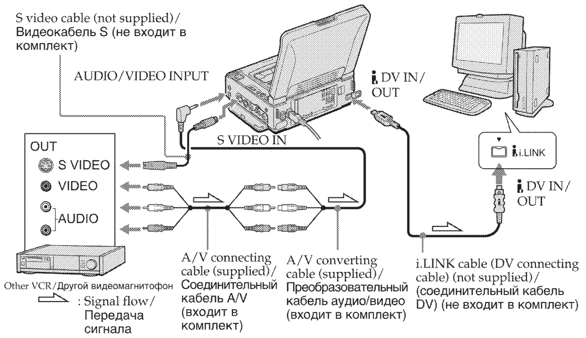
Использование с аналоговым видеооборудованием и персональным компьютером – Функция преобразования сигнала

Можно производить преобразование аналоговых видеосигналов в цифровые видеосигналы путем подключения Вашего видеомагнитофона к персональному компьютеру и аналоговому видеоустройству.

Перенос изображения и звука с аналогового видеоустройства

Аналоговые видеосигналы → Цифровые видеосигналы

(1) Установите переключатель POWER в положение ON.
(2) Установите команду A/V → DV OUT в положение ON в VCR в установках меню (стр. 67).
На экране ЖКД появится "A/V → DV".
(3) Включите режим воспроизведения на аналоговом видеоустройстве.
(4) Начните перенос на персональный компьютер.
Порядок действий при этом зависит от используемого персонального компьютера и программного обеспечения.
Более подробную информацию о переносе изображений см. в инструкциях по эксплуатации персонального компьютера и программного обеспечения.


S video cable (not supplied)/
Видеокабель S (не входит в комплект)
AUDIO/VIDEO INPUT
DV IN/OUT
S VIDEO IN
OUT
S VIDEO
VIDEO
AUDIO
i.LINK
DV IN/OUT
Other VCR/Другой видеомагнитофон
: Signal flow/Передача сигнала
A/V connecting cable (supplied)/Соединительный кабель A/V (входит в комплект)
A/V converting cable (supplied)/Преобразовательный кабель аудио/видео (входит в комплект)
i.LINK cable (DV connecting cable) (not supplied)/(соединительный кабель DV) (не входит в комплект)

After capturing images and sound
Stop capturing procedures on your personal computer, and stop the playback on the analogue video unit.

После переноса изображения и звука
Прекратите процедуру переноса на персональный компьютер и остановите воспроизведение на аналоговом видеоустройстве.

Using with an analogue video unit and a personal computer – Signal convert function

Notes
- You need to install software which can exchange video signals.
- Depending on the condition of the analogue video signals, the personal computer may not be able to output the images correctly when you convert analogue video signals into digital video signals via your VCR. Depending on the analogue video unit, the image may contain noise or incorrect colours.
- You cannot record or capture the video output via your VCR when the video includes copyright protection signals.

If the other VCR has an S video jack
Connect using an S video cable (not supplied) to obtain high-quality pictures.
With this connection, you do not need to connect the yellow (video) plug of the A/V connecting cable.
Connect an S video cable (not supplied) to the S video jacks of both VCRs.

Использование с аналоговым видеооборудованием и персональным компьютером – Функция преобразования сигнала

Примечания
- Вам нужно установить программное обеспечение, обеспечивающее обмен видеосигналами.
- В зависимости от качества аналогового видеосигнала, персональный компьютер может неправильно отображать кадры после преобразования видеомагнитофоном аналоговых видеосигналов в цифровые. В зависимости от аналогового видеоустройства, изображение может быть расплывчатым или с неправильной цветопередачей.
- Нельзя выполнить запись или перенос видеоизображения с помощью этого видеомагнитофона, если видеопрограмма имеет сигналы для защиты авторских прав.

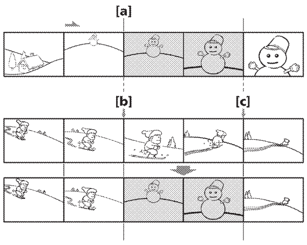
Если на другом видеомагнитофоне имеется видеогнездо S
Выполните соединение с помощью видеокабеля S (не входит в комплект) для получения высококачественных изображений.
При таком соединении не понадобится подключать желтый штекер (видео) соединительного кабеля аудио/видео.
Подсоедините видеокабель S (не входит в комплект) к видеогнездам S на обоих видеомагнитофонах.

Inserting a scene from the other (playback) VCR – Insert Editing

You can insert a new scene and sound from the other (playback) VCR onto your originally recorded tape by specifying the insert start and end points. Use the Remote Commander supplied with a Sony digital camera recorder for this operation.
Connections are the same as in "Recording from the other VCR or TV" on page 23 and 25.
Insert a cassette containing the desired scene in the other (playback) VCR to insert into your (recording) VCR.

Вставка эпизода с другого (воспроизводящего) видеомагнитофона – Монтаж вставки

Можно вставить новый эпизод и звук с другого (воспроизводящего) видеомагнитофона на уже записанную ленту, указав места их начала и окончания. Для этой операции используйте пульт дистанционного управления, поставляемый с цифровой видеокамерой Sony.
Соединения аналогичны описанным в разделе "Запись с другого видеомагнитофона или телевизора" на стр. 23 и 25.
Вставьте в другой (воспроизводящий) видеомагнитофон кассету с тем эпизодом, который требуется записать на этот (записывающий) видеомагнитофон.

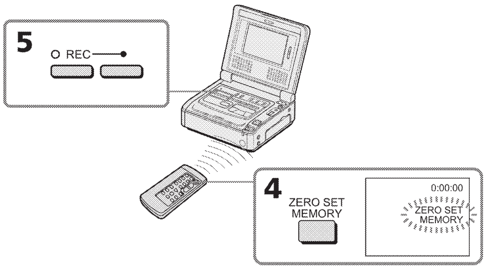


Inserting a scene from the other (playback) VCR – Insert Editing

(1) Set the POWER switch to ON.
(2) On the other (playback) VCR, locate just before the insert start point **[a]**, then press PAUSE to set the other (playback) VCR to the playback pause mode.
(3) On your (recording) VCR, locate the insert end point **[c]** by pressing ◀◀ or ▶▶. Then press ❚❚ to set your (recording) VCR to the playback pause mode.
(4) Press ZERO SET MEMORY on the Remote Commander. The ZERO SET MEMORY indicator flashes and the end point of the insert is stored in memory.
The counter shows "0:00:00".
(5) On your (recording) VCR, locate the insert start point **[b]** by pressing ◀◀, then press REC and the button on its right simultaneously to set your (recording) VCR to the recording pause mode.
(6) First press PAUSE on the other (playback) VCR, and after a few seconds press ❚❚ on your (recording) VCR to start inserting the new scene.
Inserting automatically stops near the zero point on the counter. Your (recording) VCR automatically stops. The end point **[c]** of the insert stored in memory is cancelled.

Вставка эпизода с другого (воспроизводящего) видеомагнитофона – Монтаж вставки

(1) Установите переключатель POWER в положение ON.
(2) На другом (воспроизводящем) видеомагнитофоне найдите место, где будет вставлен эпизод **[a]**, затем нажмите кнопку PAUSE для установки другого (воспроизводящего) видеомагнитофона в режим паузы воспроизведения.
(3) На (записывающем) видеомагнитофоне найдите конец вставляемого эпизода **[c]**, нажав кнопку ◀◀ или ▶▶. Затем нажмите кнопку ❚❚ для установки этого (записывающего) видеомагнитофона в режим паузы воспроизведения.
(4) Нажмите кнопку ZERO SET MEMORY на пульте дистанционного управления. Индикатор ZERO SET MEMORY начнет мигать, а место окончания вставки будет сохранено в памяти. Показание счетчика станет равным "0:00:00".
(5) На этом (записывающем) видеомагнитофоне найдите место начала вставляемого эпизода **[b]**, нажав кнопку ◀◀, затем одновременно нажмите кнопку REC и кнопку справа от нее для установки этого (записывающего) видеомагнитофона в режим паузы воспроизведения.
(6) Сначала нажмите кнопку PAUSE на другом (воспроизводящем) видеомагнитофоне и, спустя несколько секунд, кнопку ❚❚ на этом (записывающем) видеомагнитофоне для начала вставки новой сцены.
Вставка автоматически прекратится в месте нулевой отметки счетчика. Этот (записывающий) видеомагнитофон автоматически остановится. Место окончания вставки **[c]**, сохраняемое в памяти, будет удалено.



To change the insert end point
Press ZERO SET MEMORY again after step 5 to erase the ZERO SET MEMORY indicator and begin from step 3.

Для изменения места окончания вставки
Снова нажмите кнопку ZERO SET MEMORY после пункта 5 для удаления индикатора ZERO SET MEMORY и начните с пункта 3.

Inserting a scene from the other (playback) VCR – Insert Editing

Notes
- The zero set memory function works only for tapes recorded in the Digital8 Ð system.
- The picture and sound recorded on the section between the insert start and end points will be erased when you insert the new scene.

When the inserted picture is played back
The picture may be distorted at the end of the inserted section. This is not a malfunction.

To insert a scene without setting the insert end point
Skip step 3 and 4. Press ■ when you want to stop inserting.

Вставка эпизода с другого (воспроизводящего) видеомагнитофона – Монтаж вставки

Примечания
- Функция памяти нулевой отметки работает только для кассет, записанных в системе Digital8 Ð.
- Изображение и звук, записанные на ленте между местами начала и окончания вставки, будут стерты при вставке нового эпизода.

При воспроизведении вставленного изображения
В конце вставленного эпизода изображение может искажаться. Однако это не является неисправностью.

Для вставки эпизода без указания места окончания вставки
Пропустите пункты 3 и 4. Нажмите кнопку ■, когда нужно остановить вставку.

Changing the menu settings

To change the mode settings in the menu settings, select the menu items with the SEL/PUSH EXEC dial. The default settings can be partially changed. First, select the icon, then the menu item, and then the mode.

(1) Press MENU to display the menu settings.
(2) Turn the SEL/PUSH EXEC dial to select the desired icon, then press the dial to set.
(3) Turn the SEL/PUSH EXEC dial to select the desired item, then press the dial to set.
(4) Turn the SEL/PUSH EXEC dial to select the desired mode, and press the dial to set.
(5) If you want to change other items, select ⮐ RETURN and press the dial, then repeat steps from 2 to 4.

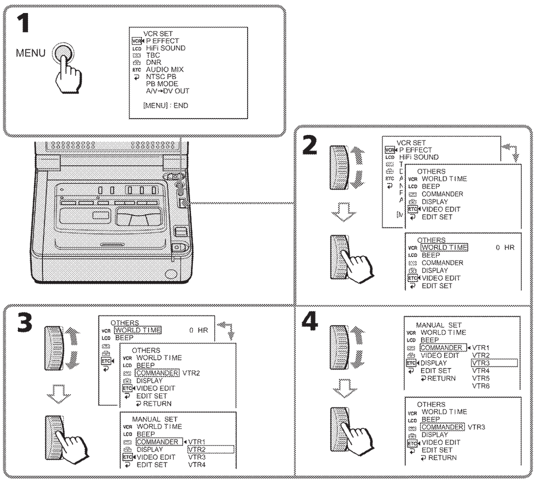
For details, refer to "Selecting the mode setting of each item" (p. 68).

Изменение установок меню

Для изменения установок режима в установках меню выберите элементы меню с помощью диска SEL/PUSH EXEC. Заводские установки могут частично отличаться. Сначала выберите значок, затем элемент меню, а затем режим.

(1) Нажмите кнопку MENU для отображения установок меню.
(2) Поверните диск SEL/PUSH EXEC для выбора нужного значка, а затем нажмите диск для выполнения установки.
(3) Поверните диск SEL/PUSH EXEC для выбора нужного элемента, затем для установки нажмите на диск.
(4) Поверните диск SEL/PUSH EXEC для выбора нужного значка, а затем нажмите диск для выполнения установки.
(5) Если нужно изменить другие пункты, выберите команду ⮐ RETURN, а затем нажмите на диск, после чего повторите пункты со 2 по 4.

Подробные сведения приведены в разделе "Выбор установок режима каждого элемента" (стр. 72).



To make the menu display disappear
Press MENU again.

Для того чтобы скрыть индикацию меню
Нажмите кнопку MENU еще раз.

Changing the menu settings

Menu items are displayed as the following icons:

VCR VCR SET
LCD LCD SET
TAPE SET
SETUP MENU
ETC OTHERS

Изменение установок меню

Элементы меню отображаются в виде следующих значков:

VCR VCR SET
LCD LCD SET
TAPE SET
SETUP MENU
ETC OTHERS

English

Selecting the mode setting of each item ● is the default setting.

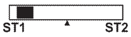
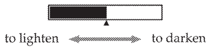
The LCD screen shows only the items you can operate at the moment.

Icon/item	Mode	Meaning
VCR **P EFFECT**	● OFF	No special effects are obtained for images
	NEG.ART	The colours and brightness of the image are reversed
	SEPIA	The image is sepia
	B&W	The image is monochrome (black-and-white)
	SOLARIZE	The light intensity is clearer, and the image looks like an illustration
HiFi SOUND	● STEREO	To play back a stereo tape or dual sound track tape with main and sub sound (p. 80)
	1	To play back a stereo tape with the left sound or a dual sound track tape with main sound
	2	To play back a stereo tape with the right sound or a dual sound track tape with sub sound
TBC*	● ON	To correct jitter
	OFF	To not correct jitter. Set TBC to OFF when playing back a tape on which you have dubbed over and recorded the signals of a TV game or similar machine
TBC stands for "Time Base Corrector."		
DNR*	● ON	To reduce picture noise
	OFF	To reduce a conspicuous afterimage when the picture has a lot of movement
DNR stands for "Digital Noise Reduction."		

* When you play back tapes recorded in the Hi8/standard 8 system only.

Note on P EFFECT
The picture effect function works only for tapes recorded in the Digital8 Ð system.

Changing the menu settings

Icon/item	Mode	Meaning
VCR **AUDIO MIX**	——	To adjust the balance between the stereo 1 and stereo 2 
PB MODE	● AUTO	To automatically select the system (Hi8/standard 8 or Digital8) that was used to record on the tape, and play back the tape
	Hi8/8	To play back a tape that was recorded in the Hi8/standard 8 system when your VCR does not automatically distinguish the recording system
A/V → DV OUT	● OFF	To convert digital video signals into analogue video signals via your VCR
	ON	To convert analogue video signals into digital video siginals via your VCR "A/V → DV" appears on the LCD screen (p. 62)
NTSC PB	● ON PAL TV	To play back a tape recorded in the NTSC colour system on a PAL system TV
	NTSC4.43	To play back a tape recorded in the NTSC colour system on a TV with the NTSC4.43 mode
LCD **LCD B. L.**	● BRT NORMAL	To set the brightness on the LCD screen normal
	BRIGHT	To brighten the LCD screen
LCD COLOUR	——	To adjust the colour on the LCD screen 

Notes on AUDIO MIX
- You can adjust the balance only for tapes recorded in the Digital8 system.
- When playing back a tape recorded in the 16-bit mode, you cannot adjust the balance.

Note on PB MODE
The mode will return to the default setting when
– you remove the battery pack or power source.
– you turn the POWER switch to OFF.

Note on NTSC PB
When you play back a tape on a Multi System TV, select the best mode while viewing the picture on TV.

Note on LCD B.L.
When you select BRIGHT, battery life is reduced by about 10 percent during recording.

(Continued on the following page)

Changing the menu settings

Icon/item	Mode	Meaning
REC MODE	● SP	To record in the SP (Standard Play) mode
	LP	To increase the recording time to 1.5 times the SP mode
AUDIO MODE*	● 12BIT	To record or play back in the 12-bit mode (two stereo sounds)
	16BIT	To record or play back in the 16-bit mode (the one stereo sound with high quality)
REMAIN	● AUTO	To display the remaining tape bar • for about 8 seconds after your VCR is turned on and calculates the remaining amount of tape • for about 8 seconds after a cassette is inserted and your VCR calculates the remaining amount of tape • for about 8 seconds after ▷ is pressed • for about 8 seconds after the DISPLAY button is pressed • during tape rewinding, forwarding, or picture search
	ON	To always display the remaining tape bar
DATA CODE	● DATE/CAM	To display date, time, and recording data during playback
	DATE	To display date and time during playback

*** To dub a tape to the other VCR**
You cannot select AUDIO MODE for tapes recorded in the Digital8 system. However, you can select AUDIO MODE when you dub tapes recorded in the Hi8/standard 8 system to the other VCR using the i.LINK cable (DV connecting cable).

Note on REC MODE
When you record on the standard 8 8 tape, your VCR records in the SP mode even if you select the LP mode in the menu settings. In this case, the indicator "8mm TAPE → SP REC, Hi8 TAPE → LP/SP REC" appears on the LCD screen. Use Hi8 Hi8 tapes for the LP mode.

Notes on the LP mode
- When you record a tape in the LP mode on your VCR, we recommend playing the tape on your VCR. When you play back the tape on other VCRs or camcorders, noise may occur in images or sound.
- When you record in the SP and LP modes on one tape or you record some scenes in the LP mode, the playback image may be distorted or the time code may not be written properly between scenes.

Changing the menu settings

Icon/item	Mode	Meaning
CLOCK SET	——	To reset the date or time (p. 76)
LTR SIZE	● NORMAL	To display selected menu items in normal size
	2×	To display selected menu items at twice the normal size
DEMO MODE	● OFF	To cancel the demonstration mode
	ON	To make the demonstration appear
ETC **WORLD TIME**	——	To set the clock to the local time Turn the SEL/PUSH EXEC dial to set a time zone difference. The clock changes by the time difference you set here. If you set the time difference to 0, the clock returns to the originally set time.
BEEP	● MELODY	To output the melody when you set the POWER switch to ON, change the menu settings, or when an unusual condition occurs on your VCR
	NORMAL	To output the beep sound instead of the melody
	OFF	To cancel all sound
COMMANDER	● VTR2	To activate your VCR with a Remote Commander supplied with a Sony video camera recorder
	VTR1~6	To activate your VCR with a Remote Commander supplied with a Sony product. For details, refer to "Playing back a tape" (p. 17).
	OFF	To deactivate the Remote Commander to avoid remote control misoperation caused by other VCR's remote control
DISPLAY	● LCD	To show the display on the LCD screen
	V-OUT/LCD	To show the display on the TV screen and LCD screen
VIDEO EDIT	——	To make a programme and perform video editing (p. 50)
EDIT SET	——	To adjust and set the synchronicity of your VCR and the other VCR for dubbing in edit set mode

Note on DEMO MODE
You cannot select DEMO MODE when a cassette is inserted in your VCR.

Note
The display does not appear when you connect and output through the i.LINK cable (DV connecting cable).

In more than 5 minutes after removing the power source
The AUDIO MIX and HiFi SOUND items are returned to their default settings.
The other menu items are held in memory even when the battery is removed.

Resetting the date and time

The default clock setting is set to London time for United Kingdom and Paris time for the other European Countries.
If you do not use your VCR for about six months, the date and time settings may be deleted because the vanadium-lithium battery installed in your VCR will have been discharged.
Charge the battery before you reset the date and time.
First, set the year, then the month, the day, the hour and then the minute.

(1) Press MENU to display the menu settings.
(2) Turn the SEL/PUSH EXEC dial to select , then press the dial.
(3) Turn the SEL/PUSH EXEC dial to select CLOCK SET, then press the dial.
(4) Turn the SEL/PUSH EXEC dial to adjust the desired year, then press the dial.
(5) Set the month, day, and hour by turning the SEL/PUSH EXEC dial and pressing the dial.
(6) Set the minute by turning the SEL/PUSH EXEC dial and pressing the dial by the time signal. The clock starts to move.
(7) Press MENU to make the menu settings disappear.

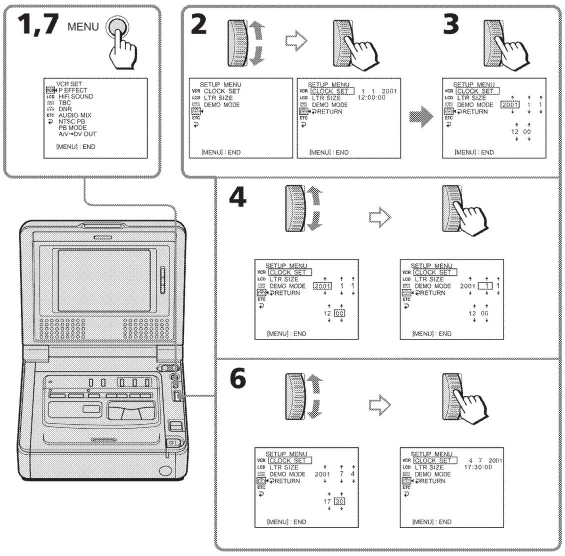
Переустановка даты и времени

По умолчанию часы установлены на лондонское время для моделей, поставляемых в Великобританию, и на парижское время для других европейских моделей.
Если видеомагнитофон не использовался около шести месяцев, установки даты и времени могут удалиться, поскольку ванадиево-литиевая батарейка, установленная в видеомагнитофоне, разрядится.
Зарядите батарейку, прежде чем установить дату и время.
Сначала установите год, затем месяц, день, час и минуту.

(1) Нажмите кнопку MENU для отображения установок меню.
(2) Поверните диск SEL/PUSH EXEC для выбора установки , а затем нажмите на диск.
(3) Поверните диск SEL/PUSH EXEC для выбора CLOCK SET, затем нажмите на диск.
(4) Поверните диск SEL/PUSH EXEC для выбора нужного года, а затем нажмите на диск.
(5) Установите месяц, день и час путем вращения диска SEL/PUSH EXEC и нажатия на него.
(6) Установите минуты путем вращения диска SEL/PUSH EXEC и нажатия на диск по сигналу точного времени. Часы начнут работать.
(7) Нажмите кнопку MENU, чтобы исчезли установки меню.

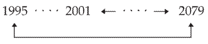
Resetting the date and time

Переустановка даты и времени



The year changes as follows:

Год будет изменяться следующим образом:



If you do not set the date and time
"--- -- ----" "--:--:--" is recorded on the data code of the tape.

Note on the time indicator
The internal clock of your VCR operates on a 24-hour cycle.

Если Вы не установите дату и время
На кассете в коде даты будет записана индикация "--- -- ----" "--:--:--".

Примечание относительно индикатора времени
Внутренние часы видеомагнитофона работают в 24-часовом режиме.

— Additional Information —

Digital8 Ð system, recording, and playback

What is the "Digital8 Ð system"?

This video system has been developed to enable digital recording to Hi8 Hi8/Digital8 Ð video cassette.

Usable cassette tapes

We recommend using Hi8 Hi8/Digital8 Ð video cassettes.*
The recording time when you use your Digital8 Ð system VCR on Hi8 Hi8/standard 8 8 tape is 2/3 the recording time of the conventional Hi8 Hi8/standard 8 8 system VCR. (90 minutes of recording time becomes 60 minutes in the SP mode.)

* If you use standard 8 8 tape, be sure to play back the tape on your VCR (the GV-D800E). Mosaic pattern noise may appear when you play back standard 8 8 tape on other VCRs (including another GV-D800E).

Notes

- Tapes recorded in the Digital8 Ð system cannot be played back on a Hi8 Hi8/standard 8 8 (analogue) system machine.
- RC time codes and data codes recorded on Hi8 Hi8/standard 8 8 (analogue) systems cannot be displayed on the monitor screen.
- PCM sound recorded on Hi8 Hi8/standard 8 8 (analogue) systems cannot be played back with your VCR.

8 is a trademark.
Hi8 is a trademark.
Ð is a trademark.

— Дополнительная информация —

Система Digital8 Ð, запись и воспроизведение

Что такое система "Digital8 Ð"?

Эта система разработана для обеспечения цифровой записи на видеокассету Hi8 Hi8/Digital8 Ð.

Используемые кассеты

Рекомендуется использовать кассеты Hi8 Hi8/Digital8 Ð.*
Время записи при использовании видеомагнитофона системы Digital8 Ð на кассете Hi8 Hi8/standard 8 8 составляет 2/3 от времени записи, выполняемой на обычном видеомагнитофоне системы Hi8 Hi8/standard 8 8. (Время записи 90 минут становится равным 60 минутам в режиме SP.)

* Если используется кассета standard 8 8, эту кассету следует воспроизводить на этом же видеомагнитофоне (модели GV-D800E). При воспроизведении кассеты standard 8 8 на других видеомагнитофонах (включая GV-D800E) могут появляться мозаичные помехи.

Примечания

- Кассеты, записанные в системе Digital8 Ð, нельзя воспроизводить на (аналоговом) аппарате системы Hi8 Hi8/standard 8 8.
- Коды времени и данных видеомагнитофона, записанные в (аналоговых) системах Hi8 Hi8/standard 8 8, не отображаются на экране монитора.
- Звук ИКМ, записанный в (аналоговой) системе Hi8 Hi8/standard 8 8, не воспроизводится на Вашем видеомагнитофоне.

8 - торговая марка.
Hi8 - торговая марка.
Ð - торговая марка.

Playback system

The Digital8 Ð system or Hi8 Hi8/standard 8 8 system is automatically detected before the tape is played back.
During playback of tapes recorded in the Hi8 Hi8/standard 8 8 system, digital signals are output as the image and sound signals from the i DV IN/OUT jack.

Display during automatic detection of system
The Digital8 Ð system or Hi8 Hi8/standard 8 8 system is automatically detected, and the playback system is automatically switched to. During switching of systems, the screen turns blue, and the following displays appear. A hissing noise also sometimes can be heard.

Ð → Hi8/8: During switching from Digital8 Ð to Hi8 Hi8/standard 8 8
Hi8/8 → Ð: During switching from Hi8 Hi8/standard 8 8 to Digital8 Ð

When you play back

Playing back an NTSC-recorded tape

You can play back tapes recorded in the NTSC video system on the LCD screen, if the tape is recorded in the SP mode.

Copyright signal

When you play back

Using any other VCR, you cannot record on a tape that has recorded copyright control signals for copyright protection of software which is played back on your VCR.

When you record

You cannot record software on your VCR that contains copyright control signals for copyright protection of software.
COPY INHIBIT appears on the LCD screen or TV screen if you try to record such software. Your VCR does not record copyright control signals on the tape when it records.

Система воспроизведения

Системы Digital8 Ð или Hi8 Hi8/standard 8 8 автоматически распознаются перед началом воспроизведения кассеты.
Во время воспроизведения кассет, записанных в системе Hi8 Hi8/standard 8 8, цифровые сигналы выдаются, как сигналы изображения и звука, через гнездо i DV IN/OUT.

Индикация на дисплее во время автоматического распознавания системы
Системы Digital8 Ð или Hi8 Hi8/standard 8 8 распознаются автоматически, после чего воспроизведение начинается в нужной системе. Во время переключения систем экран становится голубым и появляется следующая индикация. Иногда также может быть слышно шипение.

Ð → Hi8/8: Во время переключения с Digital8 Ð на Hi8 Hi8/standard 8 8
Hi8/8 → Ð: Во время переключения с Hi8 Hi8/standard 8 8 на Digital8 Ð

При воспроизведении

Воспроизведение кассеты, записанной в системе NTSC

Если кассета записана в режиме SP, можно воспроизводить кассеты, записанные в видеосистеме NTSC, на экране ЖКД.

Сигнал авторского права

При воспроизведении

Используя любой другой видеомагнитофон, Вы не сможете выполнить запись на ленту, на которой записаны сигналы авторского права для защиты авторских прав программ, воспроизводимых на Вашем видеомагнитофоне.

При записи

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При попытке записи такой программы на экране ЖКД или телевизора появится индикация COPY INHIBIT. Во время записи этот видеомагнитофон не записывает сигналы авторского права на ленту.

When you play back a dual sound track tape

When you use tapes recorded in the Digital8 Ð system

When you play back a Digital8 Ð system tape which is dubbed from a dual sound track tape recorded in the DV system, set HiFi SOUND to the desired mode in the menu settings (p. 67).

Sound from speakers

HiFi Sound Mode	Playing back a stereo tape	Playing back a dual sound track tape
STEREO	Stereo	Main sound and Sub sound
1	Lch	Main sound
2	Rch	Sub sound

When you use a tape recorded in the Hi8/standard 8 system

When you play back a dual sound track tape recorded in an AFM HiFi stereo system, set HiFi SOUND to the desired mode in the menu settings (p. 67).

Sound from speakers

HiFi Sound Mode	Playing back a stereo tape	Playing back a dual sound track tape
STEREO	Stereo	Main sound and sub sound
1	Monaural	Main sound
2	Unnatural Sound	Sub sound

You cannot record dual sound programmes on your VCR.

При воспроизведении ленты с двойной звуковой дорожкой

При использовании кассет, записанных в системе Digital8 Ð

При воспроизведении кассеты, перезаписанной в системе Digital8 Ð с кассеты с двойной звуковой дорожкой в системе DV, установите требуемый режим для команды HiFi SOUND в установках меню (стр. 67).

Звук из громкоговорителей

Режим HiFi Sound	Воспроизведение стереофонической ленты	Воспроизведение ленты с двойной звуковой дорожкой
STEREO	Стерео	Основной и вспомогательный звук
1	ЛЕВ КАН	Основной звук
2	ПРАВ КАН	Вспомогательный звук

При использовании кассет, записанных в системе Hi8/standard 8

При воспроизведении кассеты с двойной звуковой дорожкой, записанной в стереосистеме AFM HiFi, установите требуемый режим для команды HiFi SOUND в установках меню (стр. 67).

Звук из громкоговорителей

Режим HiFi Sound	Воспроизведение стереофонической ленты	Воспроизведение ленты с двойной звуковой дорожкой
STEREO	Стерео	Основной и вспомогательный звук
1	Монофонический	Основной звук
2	Неестественный звук	Вспомогательный звук

На этом видеомагнитофоне невозможно записывать программы с двойной звуковой дорожкой.

About i.LINK

The DV jack on this unit is an i.LINK-compliant DV IN/OUT jack. This section describes the i.LINK standard and its features.

What is "i.LINK"?

i.LINK is a digital serial interface for handling digital video, digital audio and other data in two directions between equipment having the i.LINK jack, and for controlling other equipment.
i.LINK-compatible equipment can be connected by a single i.LINK cable. Possible applications are operations and data transactions with various digital AV equipment.
When two or more i.LINK-compatible equipment are connected to this unit in a daisy chain, operations and data transactions are possible with not only the equipment that this unit is connected to but also with other devices via the directly connected equipment.
Note, however, that the method of operation sometimes varies according to the characteristics and specifications of the equipment to be connected, and that operations and data transactions are sometimes not possible on some connected equipment.

Note
Normally, only one piece of equipment can be connected to this unit by the i.LINK cable (DV connecting cable). When connecting this unit to i.LINK-compatible equipment having two or more i.LINK jacks (DV jacks), refer to the instruction manual of the equipment to be connected.

О кабеле i.LINK

Гнездо DV на данном аппарате является i.LINK-совместимым гнездом DV IN/OUT. В данном разделе описывается стандарт i.LINK и его особенности.

Что такое "i.LINK"?

i.LINK - это цифровой последовательный интерфейс для передачи цифрового видео- и аудиосигнала, а также других данных между оборудованием, имеющим гнездо i.LINK, в двух направлениях, а также для управления другим оборудованием.
i.LINK-совместимое оборудование должно подключаться с помощью одного кабеля i.LINK. Может использоваться с различным цифровым аудио-видео оборудованием для управления и передачи данных.
Когда одно или несколько i.LINK-совместимых устройств подключены к данному аппарату по последовательной схеме опроса, управление и передача данных возможны не только для устройства, к которому подключен данный аппарат, но также и для других устройств через оборудование, подключенное напрямую.
Следует, однако, иметь в виду, что метод управления иногда меняется в соответствии с характеристиками и спецификациями подключенного оборудования. Кроме этого, управление и передача данных иногда бывают невозможны на некоторых подключенных устройствах.

Примечание
Обычно, с помощью кабеля i.LINK (соединительный кабель DV) к данному аппарату можно подключить только одно устройство. При подключении данного аппарата к i.LINK-совместимому устройству, имеющему два или более гнезд i.LINK (гнезд DV), обратитесь к инструкциям по эксплуатации подключаемого оборудования.

About the Name "i.LINK"

i.LINK is a more familiar term for IEEE 1394 data transport bus proposed by SONY, and is a trademark approved by many corporations.
IEEE 1394 is an international standard standardized by the Institute of Electrical and Electronic Engineers.

i.LINK Baud rate

i.LINK's maximum baud rate varies according to the equipment. Three maximum baud rates are defined:

S100 (approx. 100Mbps*)
S200 (approx. 200Mbps)
S400 (approx. 400Mbps)

The baud rate is listed under "Specifications" in the instruction manual of each equipment. It is also indicated near the i.LINK jack on some equipment.
The maximum baud rate of equipment on which it is not indicated such as this unit is "S100".
When units are connected to equipment having a different maximum baud rate, the baud rate sometimes differs from the indicated baud rate.

*** What is "Mbps"?**
Mbps stands for megabits per second, or the amount of data that can be sent or received in one second. For example, a baud rate of 100Mbps means that 100 megabits of data can be sent in one second.

О названии "i.LINK"

i.LINK является более знакомым термином для шины передачи данных стандарта IEEE 1394, предложенным корпорацией SONY. i.LINK является торговой маркой, признанной многими корпорациями.
IEEE 1394 - это международный стандарт, принятый институтом инженеров по электротехнике и радиоэлектронике.

Скорость передачи в бодах по кабелю i.LINK

Максимальная скорость передачи в бодах по кабелю i.LINK изменяется в зависимости от оборудования. Определены три максимальные скорости передачи в бодах:

S100 (прибл. 100 Мбит/с*)
S200 (прибл. 200 Мбит/с)
S400 (прибл. 400 Мбит/с)

Скорость передачи в бодах указывается в разделе "Характеристики" инструкций по эксплуатации каждого устройства. На некоторых устройствах она указывается рядом с гнездом i.LINK.
Максимальная скорость передачи в бодах для устройства, на котором она не указана, например, для данного аппарата, равна "S100".
При подключении данного аппарата к устройству, имеющему другую максимальную скорость передачи в бодах, эта скорость иногда отличается от указанной.

*** Что такое "Мбит/с"?**
Мбит/с соответствует числу мегабит в секунду или объему данных, которые можно принимать или передавать за одну секунду. Например, скорость передачи в бодах, равная 100 Мбит/с, означает, что в одну секунду можно передать 100 мегабит данных.

i.LINK Functions on this unit

For details on how to dub when this unit is connected to other video equipments having DV jacks, refer to "Dubbing a tape" (p. 46).
This unit can also be connected to other i.LINK (DV) compatible equipments made by SONY (e.g. VAIO series personal computer) other than video equipment.
Before connecting this unit to a personal computer, make sure that application software supported by this unit is already installed on the personal computer.
For details on precautions when connecting this unit, also refer to the instruction manuals for the equipment to be connected.

Required i.LINK Cable

Use the Sony i.LINK 4-pin-to-4-pin cable (during DV dubbing).

i.LINK and i are trademarks.

Функции i.LINK на данном аппарате

Более подробную информацию о перезаписи, когда этот аппарат подключен в другому видеооборудованию, имеющему гнезда DV, см. в разделе "Перезапись кассеты" (стр. 46).
Данный аппарат также можно подключать к другому i.LINK (DV) совместимому оборудованию фирмы SONY (например, персональный компьютер серии VAIO), не являющемуся видеооборудованием.
Перед подключением этого аппарата к персональному компьютеру, проверьте, установлено ли на компьютере программное обеспечение, прилагаемое к данному аппарату.
Более подробную информацию о мерах предосторожности при подключении данного аппарата также можно найти в инструкциях по эксплуатации подключаемого оборудования.

Требуемый кабель i.LINK

Используйте кабель Sony i.LINK 4-на-4-штырька (во время перезаписи цифрового видео).

i.LINK и i - торговые марки.

English

Troubleshooting

If you run into any problem using your VCR, use the following table to troubleshoot the problem. If the problem persists, disconnect the power source and contact your Sony dealer or a local authorized Sony service facility. If "C:□□:□□" appears on the LCD screen, the self-diagnosis display function has worked. Refer to "Self-diagnosis display" (p. 86).

Symptom	Cause and/or Corrective Actions
The power does not turn on.	• The AC power adaptor is not connected to the mains. → Connect the AC power adaptor to the mains (p. 8). • The battery pack is not installed, or is dead or nearly dead. → Install a charged battery pack (p. 9-11).
You cannot playback.	• The POWER switch is not set to ON. → Set it to ON (p. 13). • The tape has run out. → Rewind the tape (p. 14).
There are horizontal lines on the picture or the playback picture is not clear or does not appear.	• The video head may be dirty. → Clean the heads using a Sony V8-25CLD cleaning cassette (not supplied) (p. 96).
No sound or only a low sound is heard when playing back a tape.	• The volume is turned to minimum. → Press VOLUME + (p. 13, 103). • The stereo tape is played back with HiFi SOUND set to 2 in the menu settings. → Set it to STEREO (p. 67). • AUDIO MIX is set to ST2 side in the menu settings. → Adjust AUDIO MIX (p. 67).
The date search does not work correctly.	• The tape has a blank portion between recorded portions (p. 37).
The picture which is recorded in the Digital8 system is not played back.	• PB MODE is set to Hi8/8 in the menu settings. → Set it to AUTO (p. 67).
The tape which is recorded in the Hi8/standard 8 system is not played back correctly.	• Set PB MODE to Hi8/8 in the menu settings (p. 67).
You cannot record.	• The POWER switch is not set to ON. → Set it to ON (p. 13). • The tape has run out. → Rewind the tape or insert a new one (p. 12, 14). • The write-protect tab is set to expose the red mark. → Use a new tape or slide the tab (p. 12). • The tape is stuck to the drum (moisture condensation). → Remove the cassette and leave your VCR for at least 1 hour to acclimatize (p. 95).
You cannot record in the LP mode.	• The tape is the standard 8 tape. → Use Hi8 Hi8/Digital8 tapes (p. 70).
The cassette cannot be removed from the holder.	• The power source is disconnected. → Connect it firmly (p. 8). • The battery is dead. → Use a charged battery pack (p. 9-11).
The ▣ and ⏏ indicators flash and no functions except for cassette ejection work.	• Moisture condensation has occurred. → Remove the cassette and leave your VCR for at least 1 hour to acclimatize (p. 95).

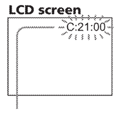
Troubleshooting

Symptom	Cause and/or Corrective Actions
No function works even though the power is on.	• Disconnect the mains lead of the AC power adaptor or remove the battery, then reconnect it after about one minute. Turn the power on. If the functions still do not work, press the RESET button on the backside of your (recording) VCR using a sharp-pointed object. (If you press the RESET button, all the settings including the date and time return to the default.)
The battery pack is quickly discharged.	• The operating temperature is too low. • The battery pack is not fully charged. → Charge the battery pack fully again (p. 10). • The battery pack is completely dead, and cannot be recharged. → Replace with a new battery pack (p. 9).
You cannot charge the battery pack.	• The POWER switch is not set to OFF. → Set it to OFF.
While charging the battery pack, the POWER ON/CHARGE lamp flashes.	• Something is wrong with the battery pack. → Contact your Sony dealer or a local authorized Sony service facility.
The melody or beep sounds for 5 seconds.	• Moisture condensation has occurred. → Remove the cassette and leave your (recording) VCR for at least 1 hour to acclimatize (p. 95). • Some trouble has occurred in your (recording) VCR. → Remove the cassette and insert it again, then operate your (recording) VCR.
While editing using the i.LINK cable (DV connecting cable), the recording picture cannot be monitored.	• Remove the i.LINK cable (DV connecting cable), and connect it again.
Digital program editing does not function.	• The input selector on the other (playback) VCR is not set correctly. → Check the connection and set the input selector on the other (playback) VCR again (p. 46, 48). • Your (recording) VCR is connected to on Sony DV equipment, using the i.LINK cable (DV connecting cable). → Keep the connection and follow the procedure on page 51 to 55. • Setting a programme on a blank portion of the tape is attempted. → Set the programme again on a recorded portion (p. 59). • Your (recording) VCR and the other (playback) VCR are not synchronized. → Adjust the synchronicity (p. 57).
The Remote Commander supplied with a Sony digital video camera recorder does not work.	•The remote control code is not set correctly or set to OFF. → Set COMMANDER in the menu settings (p. 17, 67). • Something is blocking the infrared rays. → Remove the obstacle. • The batteries are inserted in the battery holder with the + – polarities incorrectly matching the + – marks. → Insert the batteries with the correct polarity. • The batteries are dead. → Insert new ones.

English

Self-diagnosis display

Your VCR has a self-diagnosis display function. This function displays the current condition of your VCR as a 5-digit code (a combination of letters and figures) on the LCD screen.
If a 5-digit code is displayed, check the following code chart. The last two digits (indicated by □□) will differ depending on the state of your VCR.



Self-diagnosis display

- •C:□□:□□
  You can service your VCR yourself.
- •E:□□:□□
  Contact your Sony dealer or a local authorized Sony facility.

Five-digit display	Cause and/or Corrective Actions
C:04:□□	• You are using a battery pack that is not an "InfoLITHIUM" battery pack. → Use an "InfoLITHIUM" battery pack (p. 9, 11).
C:21:□□	• Moisture condensation has occurred. → Remove the cassette and leave your VCR for at least 1 hour to acclimatize (p. 95).
C:22:□□	• The video heads are dirty. → Clean the heads using a Sony V8-25CLD cleaning cassette (not supplied) (p. 96).
C:31:□□ C:32:□□	• A malfunction, other than the above, that you can service has occurred. → Remove the cassette and insert it again, then operate your VCR. → Disconnect the power cord of the AC power adaptor or remove the battery pack. After reconnecting the power source, operate your VCR.
E:61:□□ E:62:□□	• A malfunction that you cannot service has occurred. → Contact your Sony dealer or a local authorized Sony service facility and inform them of the 5-digit code (example: E:61:10).

If you are unable to rectify the problem even if you try corrective actions a few times, contact your Sony dealer or a local authorized Sony service facility.

English

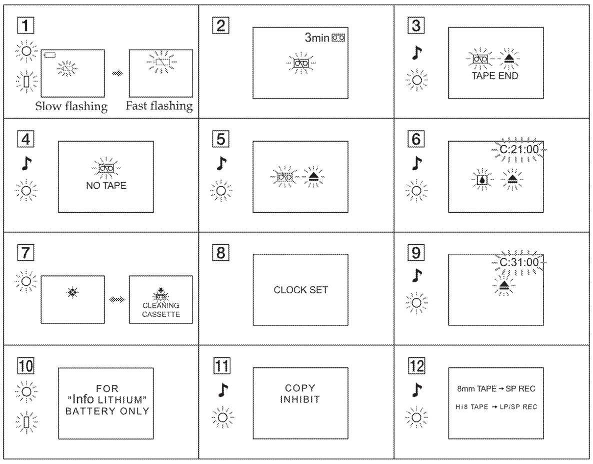
Warning indicators and messages

If the CAUTION lamp and the indicators on the LCD screen flash, check the following:
If the CAUTION lamp flashes, but no indicators appear on the LCD screen, contact your Sony dealer or a local authorized Sony facility.

♪ : You can hear the beep sound when BEEP is set to MELODY/NORMAL in the menu settings.

▯ : The POWER ON/CHARGE lamp flashes green.

☼ : The CAUTION lamp flashes yellow.



1 **The battery is weak or dead.**
Slow flashing: The battery is weak.
Fast flashing: The battery is empty or dead (p. 10).
Depending on conditions, the ▭ indicator may flash, even if there are 5 to 10 minutes remaining.

2 **The tape is near the end.**
The flashing is slow, and the REC lamp flashes.

3 **The tape has run out.**
The flashing becomes rapid.
When you press the REC button, the indicators appear.

4 **No tape has been inserted.**
When you press the REC button, the indicators appear.

5 **The write protect tab on the tape is set (red).**
When you press the REC button, the indicators appear.

Warning indicators and messages

6 **Moisture condensation has occurred (p. 95).**

7 **The video heads may be contaminated (p. 96).**

8 **The clock is not set.**
When this message appears even though you set the date and time, the vanadium-lithium battery is discharged. Charge the vanadium-lithium battery (p. 97).

9 **Some other trouble has occurred.**
Disconnect the power source and contact your Sony dealer or a local authorized facility.

10 **The battery is not the "InfoLITHIUM" type.**

11 **You cannot dub the recordings.**
You tried to record a picture that has a copyright control signal (p. 79).

12 **You cannot record in the LP mode.**
Use Hi8 **Hi8**/Digital8 **D8** tapes when you record in the LP mode (p. 70).

Using your VCR abroad

Using your VCR abroad

You can use your VCR in any country or area with the supplied AC power adaptor with your VCR within 100 V to 240 V AC, 50/60 Hz.

Your VCR is a PAL system based VCR. If you want to view the playback picture on your TV, it must be a PAL system based TV with a AUDIO/VIDEO input jack.
The following shows TV colour systems used overseas.

PAL system
Australia, Austria, Belgium, China, Czech Republic, Denmark, Finland, Germany, Great Britain, Holland, Hong Kong, Italy, Kuwait, Malaysia, New Zealand, Norway, Portugal, Singapore, Slovak Republic, Spain, Sweden, Switzerland, Thailand, etc.

PAL-M system
Brazil

PAL-N system
Argentina, Paraguay, Uruguay

NTSC system
Bahama Islands, Bolivia, Canada, Central America, Chile, Colombia, Ecuador, Jamaica, Japan, Korea, Mexico, Peru, Surinam, Taiwan, the Philippines, the U.S.A., Venezuela, etc.

SECAM system
Bulgaria, France, Guyana, Hungary, Iran, Iraq, Monaco, Poland, Russia, Ukraine, etc.

Simple setting of clock by time difference

You can easily set the clock to the local time by setting a time difference. Select WORLD TIME in the menu settings (p. 67). See page 71 for more information.

Использование видеомагнитофона за границей

Использование видеомагнитофона за границей

Вы можете использовать этот видеомагнитофон в любой стране или области благодаря прилагаемому к нему сетевому адаптеру переменного тока, который можно подключать к сети с напряжением от 100 до 240 В переменного тока и частотой 50/60 Гц.

В этом видеомагнитофоне используется система PAL. Если Вы хотите просмотреть воспроизводимое изображение на телевизоре, то это должен быть телевизор, работающий в системе PAL и оснащенный входными гнездами AUDIO/VIDEO.
Ниже приведены системы цветного телевидения, используемые за рубежом.

Система PAL
Австралия, Австрия, Бельгия, Китай, Чешская Республика, Дания, Финляндия, Германия, Великобритания, Голландия, Гонконг, Италия, Кувейт, Малайзия, Новая Зеландия, Норвегия, Португалия, Сингапур, Словакская Республика, Испания, Швеция, Швейцария, Таиланд и т.д.

Система PAL-M
Бразилия

Система PAL-N
Аргентина, Парагвай, Уругвай

Система NTSC
Багамские острова, Боливия, Канада, Центральная Америка, Чили, Колумбия, Эквадор, Ямайка, Япония, Корея, Мексика, Перу, Суринам, Тайвань, Филиппины, США, Венесуэла и т.д.

Система SECAM
Болгария, Франция, Гайана, Венгрия, Иран, Ирак, Монако, Польша, Россия, Украина и т.д.

Простая установка разницы во времени на часах

Можно легко установить местное время на часах путем установки разницы во времени. Выберите команду WORLD TIME в установках меню (стр. 67). Подробные сведения см. на стр. 75.

Maintenance information and precautions

Moisture condensation

If your VCR is brought directly from a cold place to a warm place, moisture may condense inside your VCR or on the surface of the tape. In this condition, the tape may stick to the head drum and be damaged or your VCR may not operate correctly. If there is moisture inside your VCR, the beep sounds and the ▣ indicator flashes. If the ⏏ indicator flashes at the same time, a cassette is inserted in your VCR.

If moisture condensation occurs

None of the functions except cassette ejection will work. Eject the cassette, turn off your VCR, and leave it for about 1 hour with the cassette compartment open. Your VCR can be used again if the ▣ indicator does not appear when the power is turned on again.

Note on moisture condensation
Moisture may condense when you bring your VCR from a cold place into a warm place (or vice versa) or when you use your VCR in a hot place as follows
- You bring your VCR from a ski slope into a place warmed up by a heating device.
- You bring your VCR from an air-conditioned car or room into a hot place outside.
- You use your VCR after a squall or a shower.
- You use your VCR in a high temperature and humid place.

How to prevent moisture condensation
When you bring your VCR from a cold place into a warm place, put your VCR in a plastic bag and tightly seal it. Remove the bag when the air temperature inside the plastic bag has reached the surrounding temperature (after about 1 hour).

Информация по уходу за аппаратом и меры предосторожности

Конденсация влаги

Если видеомагнитофон принесен из холодного места в теплое помещение, то внутри видеомагнитофона или на поверхности ленты может произойти конденсация влаги. В таком состоянии лента может прилипнуть к барабану головки и повредиться, или видеомагнитофон не сможет работать надлежащим образом. Если внутри видеомагнитофона произошла конденсация влаги, прозвучит звуковой сигнал и замигает индикатор ▣. Если одновременно мигает индикатор ⏏, это значит, что в видеомагнитофон вставлена кассета.

Если произошла конденсация влаги

Не будут работать никакие функции кроме извлечения кассеты. Извлеките кассету, выключите видеомагнитофон и оставьте его примерно на 1 час с открытым отсеком для кассеты. Видеомагнитофон снова можно использовать, если индикатор ▣ не появляется при повторном включении питания.

Примечание относительно конденсации влаги
Влага может образоваться, если Вы принесете видеомагнитофон из холодного места в теплое (или наоборот) или когда Вы используете видеомагнитофон в жарком месте в следующих случаях
- Вы принесли видеомагнитофон с лыжного склона в помещение, где работает обогреватель.
- Вы вынесли видеомагнитофон из автомобиля или из комнаты с воздушным кондиционированием в жаркое место на улице.
- Вы используете Ваш видеомагнитофон после грозы или дождя.
- Вы используете видеомагнитофон в месте с высокой температурой воздуха и повышенной влажностью.

Как предотвратить конденсацию влаги
Если видеомагнитофон принесен из холодного места в теплое, то положите его в полиэтиленовый пакет и плотно заклейте его. Выньте видеомагнитофон из полиэтиленового пакета, когда температура воздуха внутри пакета достигнет температуры окружающего воздуха (приблизительно через 1 час).

Maintenance information and precautions

Maintenance information

Cleaning the LCD screen

If fingerprints or dust make the LCD screen dirty, we recommend using a LCD cleaning kit (not supplied) to clean the LCD screen.

Cleaning the video head

To ensure normal recording and clear pictures, clean the video heads.

When you playback/record in the Digital8 system

The video head may be dirty if
- mosaic-pattern noise appears on the playback picture.
- playback pictures do not move.
- playback pictures are hardly visible.
- playback pictures do not appear.
- the ⊗ indicator and "CLEANING CASSETTE" message appear alternately on the LCD screen.

Информация по уходу за аппаратом и меры предосторожности

Информация по уходу за аппаратом

Чистка экрана ЖКД

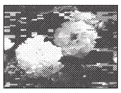
Если на экране ЖКД появятся отпечатки пальцев или пыль, рекомендуется воспользоваться очистительным набором для ЖКД (не входит в комплект) для чистки ЖКД.

Чистка видеоголовок

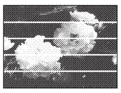
Для обеспечения нормальной записи и четкого изображения следует периодически чистить видеоголовки.

При воспроизведении/записи в системе Digital8

Видеоголовки, возможно, загрязнены, если
- на воспроизводимом изображении появляются помехи в виде мозаики.
- воспроизводимое изображение не двигается.
- воспроизводимое изображение почти невидимо.
- изображение отсутствует.
- на экране ЖКД попеременно появляются индикатор ⊗ и сообщение "CLEANING CASSETTE".



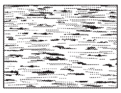
or/или



When you play back in the Hi8/standard 8 (analogue) system
The video head may be dirty if
- playback pictures contain noise.
- playback pictures are hardly visible.
- playback pictures do not appear.

При воспроизведении в (аналоговой) системе Hi8/standard 8
Видеоголовки, возможно, загрязнены, если
- на воспроизводимом изображении имеются помехи.
- воспроизводимое изображение почти невидимо.
- изображение отсутствует.

or/или



If the above problem occurs, clean the video heads with a Sony V8-25CLD cleaning cassette (not supplied). Check the picture and if the above problem persists, repeat cleaning.

При возникновении перечисленных выше проблем почистите видеоголовки с помощью чистящей кассеты Sony V8-25CLD (не входит в комплект). Проверьте качество изображения и, если проблему устранить не удалось, повторите чистку.

Maintenance information and precautions

Charging the vanadium-lithium battery in your VCR

Your VCR comes with a vanadium-lithium battery installed so as to retain the date and time, etc., regardless of the setting of the POWER switch. The vanadium-lithium battery is always charged as long as you are using your VCR. The battery, however, will become discharged gradually if you do not use your VCR. It will be completely discharged in about six months if you do not use your VCR at all. Even if the vanadium-lithium battery is not charged, it will not affect the VCR operation. To retain the date and time, etc., charge the battery if the battery is discharged.

Charging the vanadium-lithium battery:
Connect your VCR to the mains using the AC power adaptor supplied with your VCR, or connect your VCR to a charged battery and leave your VCR switched off for more than 24 hours.

Информация по уходу за аппаратом и меры предосторожности

Зарядка ванадиево-литиевой батарейки в видеомагнитофоне

В Вашем видеомагнитофоне установлена ванадиево-литиевая батарейка, которая сохраняет в памяти дату и время и т.п. независимо от положения переключателя POWER. Ванадиево-литиевая батарейка всегда заряжается во время использования видеомагнитофона. Однако, если видеомагнитофон не используется, батарейка будет постепенно разряжаться. Если видеомагнитофон совсем не используется, батарейка полностью разрядится примерно через шесть месяцев. Даже если ванадиево-литиевая батарея не заряжена, это никак не повлияет на работу видеомагнитофона. Если батарея разряжена, то для сохранения даты, времени и т.д. ее необходимо зарядить.

Зарядка ванадиево-литиевой батареи:
Подсоедините видеомагнитофон к электрической сети с помощью прилагаемого к нему сетевого адаптера переменного тока или к заряженному батарейному блоку и оставьте видеомагнитофон с выключенным питанием более, чем на 24 часа.

Maintenance information and precautions

Precautions

VCR operation

- Operate your VCR on 7.2 V (battery pack) or 8.4 V (AC power adaptor).
- For DC or AC operation, use the accessories recommended in this operating instructions.
- If any solid object or liquid gets inside the casing, unplug your VCR and have it checked by a Sony dealer before operating it any further.
- Handle your VCR rightly, and do not give a mechanical shock.
- Keep the POWER switch set to OFF when you are not using your VCR.
- Do not wrap your VCR with a towel, for example, and operate it. Doing so might cause heat to build up inside.
- Keep your VCR away from strong magnetic fields or mechanical vibration. Noise may appear on the image.
- Do not touch the LCD screen with your fingers or a sharp-pointed object.
- If your VCR is used in a cold place, a residual image may appear on the LCD screen. This is not a malfunction.
- While using your VCR, the back of the LCD screen may heat up. This is not a malfunction.

On handling tapes

Do not insert anything into the small holes on the rear of the cassette. These holes are used to sense the type and thickness of the tape and if the recording tab is in or out.

VCR care

- Remove the tape, and periodically turn on the power and play back a tape for about 3 minutes when your VCR is not to be used for a long time.
- Clean the VCR body with a dry soft cloth, or a soft cloth lightly moistened with a mild detergent solution. Do not use any type of solvent which may damage the finish.
- Do not let sand get into your VCR. When you use your VCR on a sandy beach or in a dusty place, protect it from the sand or dust. Sand or dust may cause your VCR to malfunction, and sometimes this malfunction cannot be repaired.

Информация по уходу за аппаратом и меры предосторожности

Меры предосторожности

Работа видеомагнитофона

- Видеомагнитофон должен работать от напряжения 7,2 В (батарейный блок) или 8,4 В (сетевой адаптер переменного тока).
- Для работы видеомагнитофона от источника постоянного или переменного тока используйте принадлежности, рекомендуемые в настоящей инструкции по эксплуатации.
- Если внутрь корпуса попал какой-либо твердый предмет или жидкость, выключите видеомагнитофон и перед дальнейшей эксплуатацией проверьте его у дилера Sony.
- Обращайтесь с видеомагнитофоном аккуратно и не подвергайте его сильному механическому воздействию.
- Если видеомагнитофон не используется, переводите переключатель POWER в положение OFF.
- Не заворачивайте видеомагнитофон, например, в полотенце, и не эксплуатируйте его в таком состоянии. В этом случае может произойти повышение температуры внутри видеомагнитофона.
- Не подвергайте видеомагнитофон воздействию сильных магнитных полей или механической вибрации. На изображении могут возникнуть помехи.
- Не прикасайтесь к экрану ЖКД пальцами или острыми предметами.
- Если видеомагнитофон используется на холоде, на экране ЖКД может появляться остаточное изображение. Однако это не является неисправностью.
- Во время эксплуатации видеомагнитофона задняя сторона экрана ЖКД может нагреваться. Однако это не является неисправностью.

Обращение с кассетами

Не вставляйте никакие предметы в маленькие отверстия с задней стороны кассеты. Эти отверстия используются для определения типа и толщины ленты, а также для определения наличия лепестка защиты от записи.

Уход за видеомагнитофоном

- Когда видеомагнитофон в течение длительного времени не используется, вынимайте кассету, а также периодически включайте питание и воспроизведение кассеты примерно на три минуты.
- Чистите корпус видеомагнитофона с помощью сухой мягкой ткани или мягкой ткани, слегка смоченной в слабом растворе моющего средства. Не пользуйтесь растворителями, которые могут повредить покрытие.
- Не допускайте попадания песка в видеомагнитофон. Если Вы используете видеомагнитофон на песчаном пляже или в пыльном месте, предохраняйте аппарат от песка или пыли. Песок и пыль могут стать причиной неисправностей видеомагнитофона, которые иногда невозможно устранить.

Maintenance information and precautions

Connection to your personal computer

- When recording with the i.LINK cable the image processed or edited by your personal computer, use a new Hi8 Hi8/Digital8 D tape.
- When you capture the pictures recorded in the Hi8 Hi8/standard 8 8 system to a personal computer, dub the recordings to the Digital8 D or DV system first, then capture them to the personal computer.

When inputting the image recorded by Hi8/standard 8 system into a Sony VAIO

The Programme Capture function of DVgate motion doesn't work. To use this function, dub the image into a Digital8 D or DV tape first, and then input it into a Sony VAIO.

AC power adaptor

- Unplug the unit from the mains when you do not intend to use the unit for a long time. To disconnect the mains lead, pull it out by the plug. Never pull the mains lead itself.
- Do not operate the unit with a damaged cord or if the unit has been dropped or damaged.
- Do not bend the mains lead forcibly, or place a heavy object on it. This will damage the cord and may cause fire or electrical shock.
- Prevent metallic objects from coming into contact with the metal parts of the plugs or jacks. If this happens, a short may occur and the unit may be damaged.
- Always keep metal contacts clean.
- Do not disassemble the unit.
- Do not apply mechanical shock or drop the unit.
- While the unit is in use, particularly during charging, keep it away from AM receivers and video equipment. AM receivers and video equipment disturb AM reception and video operation.
- The unit becomes warm during use. This is not a malfunction.
- Do not place the unit in locations that are
  - Extremely hot or cold
  - Dusty or dirty
  - Very humid
  - Vibrating

Информация по уходу за аппаратом и меры предосторожности

Подключение к персональному компьютеру

- При записи с помощью кабеля i.LINK изображений, обработанных или измененных на ПК, используйте новую кассету Hi8 Hi8/Digital8 D.
- При переносе изображений, записанных в системе Hi8 Hi8/standard 8 8, на персональный компьютер сначала перепишите записи в системе Digital8 D или DV, затем перенесите их на ПК.

При переносе изображения, записанного в системе Hi8/standard 8, на персональный компьютер Sony VAIO

Функция Programme Capture (Перенос по программе) программы DVgate motion не работает. Для использования этой функции сначала перепишите изображение на кассету Digital8 D или DV, а затем перенесите его на персональный компьютер Sony VAIO.

Сетевой адаптер переменного тока

- Отсоедините аппарат от электрической сети, если Вы не собираетесь его использовать длительное время. Для отключения от сети электропитания, потяните сетевой шнур за вилку. Никогда не тяните за сам шнур.
- Не эксплуатируйте аппарат, когда поврежден шнур питания, или если аппарат упал или поврежден.
- Сильно не сгибайте сетевой провод и не ставьте на него тяжелые предметы. Это вызовет повреждение провода и может привести к пожару или поражению электрическим током.
- Никакие металлические предметы не должны соприкасаться с металлическими частями штекеров или гнезд.
- Всегда держите в чистоте металлические контакты.
- Не разбирайте аппарат.
- Не подвергайте аппарат механическим воздействиям и не роняйте его.
- При использовании аппарата, особенно во время зарядки, держите его подальше от AM-радиоприемников и видеоаппаратуры. AM-радиоприемники и видеоаппаратура нарушают прием AM-сигнала и работу видеоаппаратуры.
- В процессе эксплуатации аппарат нагревается. Однако это не является неисправностью.
- Не размещайте аппарат в местах
  - Чрезмерно жарких или холодных
  - Пыльных или грязных
  - Очень влажных
  - Подверженных вибрации

Maintenance information and precautions

Battery pack

- Use only the specified charger or video equipment with the charging function.
- To prevent an accidental short circuit, do not allow metal objects to come into contact with the battery terminals.
- Keep the battery pack away from fire.
- Never expose the battery pack to temperatures above 60°C (140°F), such as in a car parked in the sun or under direct sunlight.
- Keep the battery pack dry.
- Do not expose the battery pack to any mechanical shock.
- Do not disassemble nor modify the battery pack.
- Attach the battery pack to the video equipment securely.
- Charging while some capacity remains does not affect the original battery capacity.

Информация по уходу за аппаратом и меры предосторожности

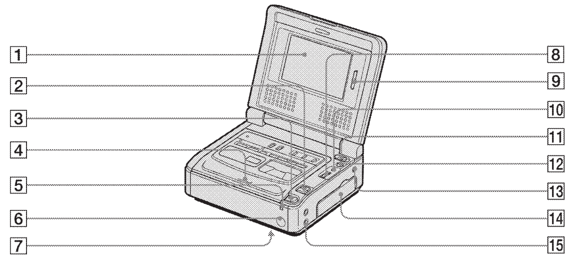
Батарейный блок

- Используйте только указанное зарядное устройство или видеоаппаратуру с функцией зарядки.
- Для предотвращения случайного короткого замыкания не допускайте контакта металлических предметов с полюсами батарейного блока.
- Не держите батарейный блок вблизи огня.
- Никогда не подвергайте батарейный блок воздействию температур свыше 60°C (140°F), например, не оставляйте его в автомобиле, припаркованном в солнечном месте, или под прямым солнечным светом.
- Всегда удаляйте влагу с батарейного блока.
- Не подвергайте батарейный блок воздействию механических ударов.
- Не разбирайте и не изменяйте батарейный блок.
- Надежно прикрепляйте батарейный блок к видеоаппаратуре.
- Зарядка не полностью разряженных батарей не влияет на первоначальную их емкость.

— Quick Reference —

Identifying the parts and controls

VCR



1 **LCD screen**
2 **VOLUME +/– buttons (p. 13)**
3 **EJECT knob (p. 12)**
4 **Cassette compartment (p. 12)**
5 **POWER ON/CHARGE lamp (p. 13)**
6 **Remote sensor**
Aim a Remote Commander (not supplied) here for remote control.
7 **RESET button (bottom) (p. 85)**
8 **SEL/PUSH EXEC dial (p. 16, 67)**
9 **LCD BRIGHT buttons (p. 13)**
10 **MENU button (p. 67)**
11 **POWER switch (p. 13)**
12 **SUPER LASER LINK button (p. 21)**
13 **LANC jack**
LANC stands for Local Application Control Bus System. The LANC control jack is used for controlling the tape transport of video equipment and peripherals connected to it. This jack has the same function as the jack indicated as control L or REMOTE.
14 **Jack cover (p. 19)**
15 **AUDIO/VIDEO INPUT jack (p. 23, 62)**

This mark indicates that this product is a genuine accessory for Sony video products. When purchasing Sony video products, Sony recommends that you purchase accessories with this "GENUINE VIDEO ACCESSORIES" mark.

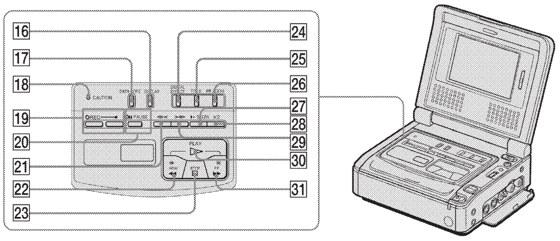
— Краткий справочник —

Обозначение деталей и органов управления

Видеомагнитофон

1 **Экран ЖКД**
2 **Кнопки VOLUME +/– (стр. 13)**
3 **Кнопка EJECT (стр. 12)**
4 **Кассетный отсек (стр. 12)**
5 **Лампочка POWER ON/CHARGE (стр. 13)**
6 **Датчик дистанционного управления**
Направьте на него пульт дистанционного управления (не входит в комплект) для удаленного управления аппаратом.
7 **Кнопка RESET (внизу) (стр. 90)**
8 **Диск SEL/PUSH EXEC (стр. 16, 67)**
9 **Кнопки LCD BRIGHT (стр. 13)**
10 **Кнопка MENU (стр. 67)**
11 **Переключатель POWER (стр. 13)**
12 **Кнопка SUPER LASER LINK (стр. 21)**
13 **Гнездо LANC**
LANC означает систему канала местного управления. Гнездо управления LANC используется для контроля за лентопротяжным механизмом видеоаппаратуры и подключенными к ней периферийными устройствами. Данное гнездо имеет такую же функцию, как и гнезда управления, обозначенные как L или REMOTE.
14 **Крышка гнезд (стр. 19)**
15 **Входное гнездо AUDIO/VIDEO INPUT (стр. 23, 62)**

Данный знак означает, что это изделие является подлинной принадлежностью для видеоаппаратуры Sony. При покупке видеоаппаратуры Sony рекомендуется приобретать для нее принадлежности со знаком "GENUINE VIDEO ACCESSORIES".



16 **DISPLAY button (p. 13)**

17 **DATA CODE button (p. 40)**

18 **CAUTION lamp (p. 87)**

19 **REC (recording) buttons and lamp (p. 23)**

20 **PAUSE (pause) button and lamp (p. 23)**

21 **◀II< FRAME (–) button (p. 14)**

22 **◀◀ REW (rewind) button (p. 14)**

23 **■ STOP (stop) button (p. 13)**

24 **DIGITAL EFFECT button (p. 32)**

25 **TITLE button (p. 42, 44)**

26 **PB (playback) ZOOM button (p. 27)**

27 **I► SLOW button (p. 14)**

28 **x2 button (p. 14)**

29 **>II► FRAME (+) button (p. 14)**

30 **▷ PLAY (playback) button (p. 13, 14)**

31 **►► FF (fastforward) button (p. 14)**

16 **Кнопка DISPLAY (стр. 13)**

17 **Кнопка DATA CODE (стр. 40)**

18 **Лампочка CAUTION (стр. 92)**

19 **Кнопки и лампочка REC (запись) (стр. 23)**

20 **Кнопка и лампочка PAUSE (пауза) (стр. 23)**

21 **Кнопка ◀II< (FRAME (–)) (стр. 14)**

22 **◀◀ Кнопка REW (ускоренная перемотка назад) (стр. 14)**

23 **■ Кнопка STOP (стоп) (стр. 13)**

24 **Кнопка DIGITAL EFFECT (стр. 32)**

25 **Кнопка TITLE (стр. 42, 44)**

26 **Кнопка PB (воспроизведение) ZOOM (стр. 27)**

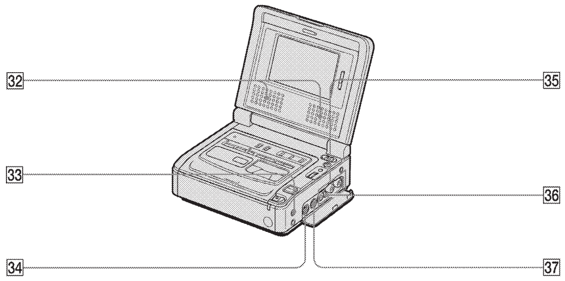
27 **Кнопка I► SLOW (стр. 14)**

28 **Кнопка x2 (стр. 14)**

29 **Кнопка >II► (FRAME (+)) (стр. 14)**

30 **Кнопка ▷ PLAY (воспроизведение) (стр. 13, 14)**

31 **Кнопка ►► FF (ускоренная перемотка вперед) (стр. 14)**



32 **Speaker**

33 **∩ (headphones) jack (p. 15)**

34 **S VIDEO IN jack (p. 23, 62)**

35 **VIDEO/AUDIO L/R OUT jacks (p. 19, 23, 46, 62)**

36 **RFU DC OUT jack (p. 20)**

37 **S VIDEO OUT jack (p. 19, 46)**

32 **Динамик**

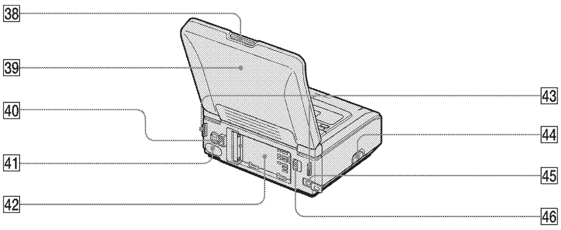
33 **Гнездо ∩ (головные телефоны) (стр. 15)**

34 **Гнездо S VIDEO IN (стр. 23, 62)**

35 **Гнезда VIDEO/AUDIO L/R OUT (стр. 19, 23, 46, 62)**

36 **Гнездо RFU DC OUT (стр. 20)**

37 **Гнездо S VIDEO OUT (стр. 19, 46)**



38 **PUSH OPEN button (p. 12)**

39 **LCD panel**

40 **DC IN jack (p. 8, 10)**

41 **Infrared rays emitter (p. 21, 54)**

42 **Battery mounting surface (p. 9)**

43 **Hooks for shoulder strap**

44 **RELEASE knob**

45 **i DV IN/OUT jack (p. 25, 48, 62)**
The i DV IN/OUT jack is i.LINK compatible.

46 **◢ BATT release lever (p. 9)**

38 **Кнопка PUSH OPEN (стр. 12)**

39 **Панель ЖКД**

40 **Гнездо DC IN (стр. 8, 10)**

41 **Инфракрасный излучатель (стр. 21, 54)**

42 **Поверхность для установки батареи (стр. 9)**

43 **Крючки для плечевого ремня**

44 **Кнопка RELEASE**

45 **Гнездо i DV IN/OUT (стр. 25, 48, 62)**
Гнездо i DV IN/OUT поддерживает передачу сигналов по стандарту i.LINK.

46 **Рычажок освобождения ◢ BATT (стр. 9)**

Note on Release knob
When you release the terminal cover, open the LCD panel first.

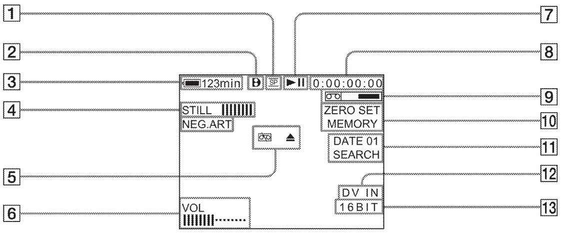
Примечания для кнопки Release
При открытии крышки терминала сначала откройте панель ЖКД.

Operation indicators

Рабочие индикаторы

LCD screen

Экран ЖКД



1 **Recording mode indicator (p. 70)**
2 **Format indicator (p. 79)**
D, Hi8 or 8 indicator appears.
3 **Remaining battery time indicator**
4 **Picture effect indicator (p. 29)/Digital effect indicator (p. 32)**
5 **Warning indicators (p. 87)**
6 **LCD bright indicator (p. 13)/Volume indicator/Data code indicator (p. 40)**
7 **Video control mode indicator (p. 14)**
8 **Tape counter indicator (p. 34)/Time code indicator/Self-diagnosis display (p. 86)**
9 **Remaining tape indicator**
10 **ZERO SET MEMORY indicator (p. 34, 65)**
11 **Search mode indicator (p. 36, 38, 39)**
12 **DV IN indicator (p. 26)/A/V → DV indicator (p. 62)**
13 **Audio mode indicator (p. 70)**

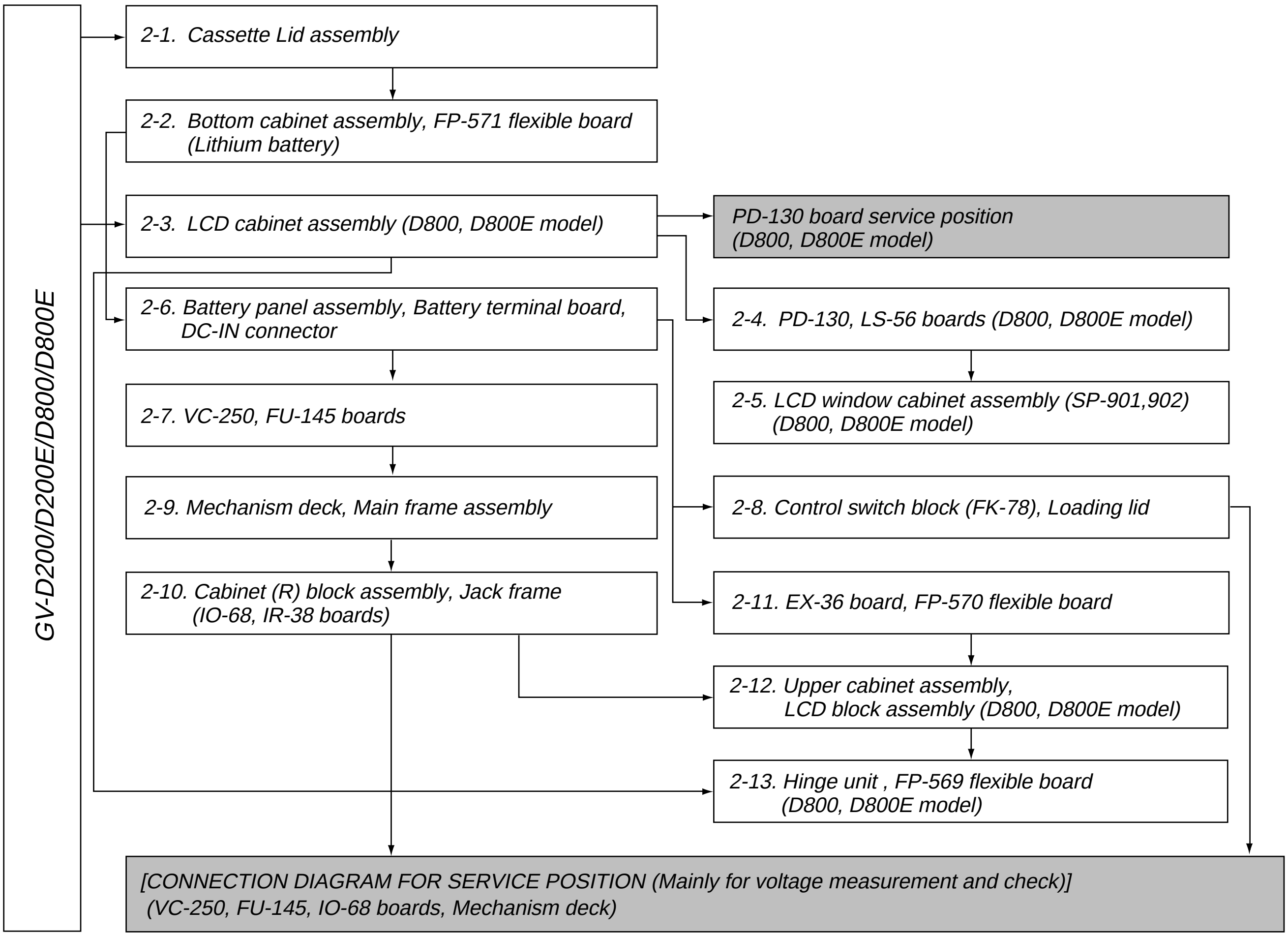
About the time code
A time code is recorded on the tape to search for scenes easily. Your VCR records the time code during recording. Press DISPLAY to check the time code. Hour, minutes, seconds, and frames appear on the LCD screen or on the TV screen. "0:00:00:00" is recorded at the beginning of the tape. If there is a blank portion on the tape, however, "0:00:00:00" is recorded after the blank portion. You cannot rewrite the time code later. The time code of your VCR is a drop frame system. It may skip some frames to adjust the time code.

1 **Индикатор режима записи (стр. 74)**
2 **Индикатор формата (стр. 79)**
Появится индикатор D, Hi8 или 8.
3 **Индикатор оставшегося времени работы батареи**
4 **Индикатор эффекта изображения (стр. 29)/Индикатор цифровых эффектов (стр. 32)**
5 **Предупреждающие индикаторы (стр. 92)**
6 **Индикатор яркости ЖКД (стр. 13)/Индикатор громкости/Индикатор кода данных (стр. 40)**
7 **Индикатор режима видеоконтроля (стр. 14)**
8 **Индикатор счетчика ленты (стр. 34)/Индикатор кода времени/Индикация самодиагностики (стр. 91)**
9 **Индикатор оставшейся ленты**
10 **Индикатор ZERO SET MEMORY (стр. 34, 65)**
11 **Индикатор режима поиска (стр. 36, 38, 39)**
12 **Индикатор DV IN (стр. 26)/Индикатор A/V → DV (стр. 62)**
13 **Индикатор аудиорежима (стр. 74)**

Код времени
На кассету записывается код времени, позволяющий быстро найти нужный эпизод. Видеомагнитофон записывает код времени во время записи. Нажмите кнопку DISPLAY для проверки кода времени. На экране ЖКД или телевизора появятся часы, минуты, секунды и кадры. В начале ленты записывается "0:00:00:00". Однако, если на ленте имеется незаписанный участок, "0:00:00:00" записывается после незаписанного участка. Впоследствии код времени нельзя перезаписать. Для кода времени в этом видеомагнитофоне используется система пропуска кадра. Она может пропускать некоторые кадры для корректировки кода времени.

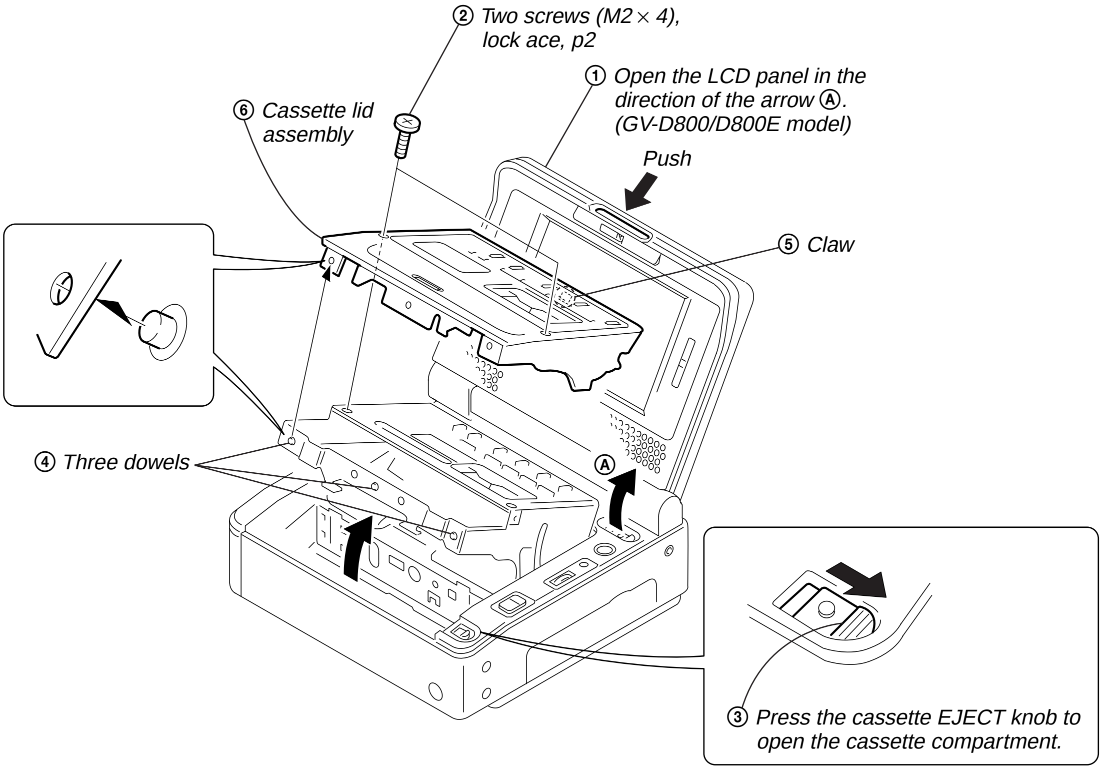
SECTION 2
DISASSEMBLY

The following flow chart shows the disassembly procedure.

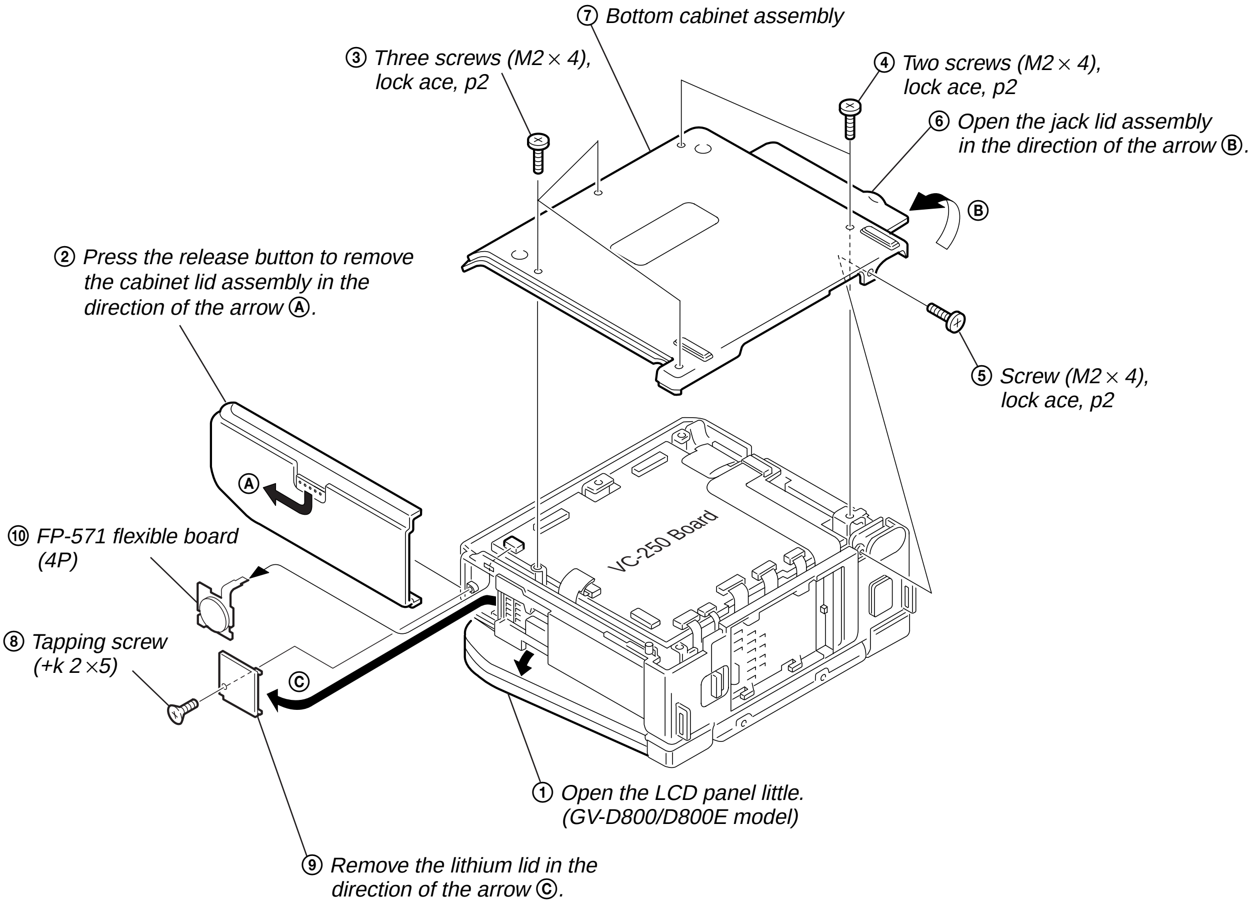

GV-D200/D200E/D800/D800E
2-1. Cassette Lid assembly
2-2. Bottom cabinet assembly, FP-571 flexible board (Lithium battery)
2-3. LCD cabinet assembly (D800, D800E model)
PD-130 board service position (D800, D800E model)
2-4. PD-130, LS-56 boards (D800, D800E model)
2-5. LCD window cabinet assembly (SP-901,902) (D800, D800E model)
2-6. Battery panel assembly, Battery terminal board, DC-IN connector
2-7. VC-250, FU-145 boards
2-8. Control switch block (FK-78), Loading lid
2-9. Mechanism deck, Main frame assembly
2-10. Cabinet (R) block assembly, Jack frame (IO-68, IR-38 boards)
2-11. EX-36 board, FP-570 flexible board
2-12. Upper cabinet assembly, LCD block assembly (D800, D800E model)
2-13. Hinge unit , FP-569 flexible board (D800, D800E model)
[CONNECTION DIAGRAM FOR SERVICE POSITION (Mainly for voltage measurement and check)] (VC-250, FU-145, IO-68 boards, Mechanism deck)

NOTE: Follow the disassembly procedure in the numerical order given.

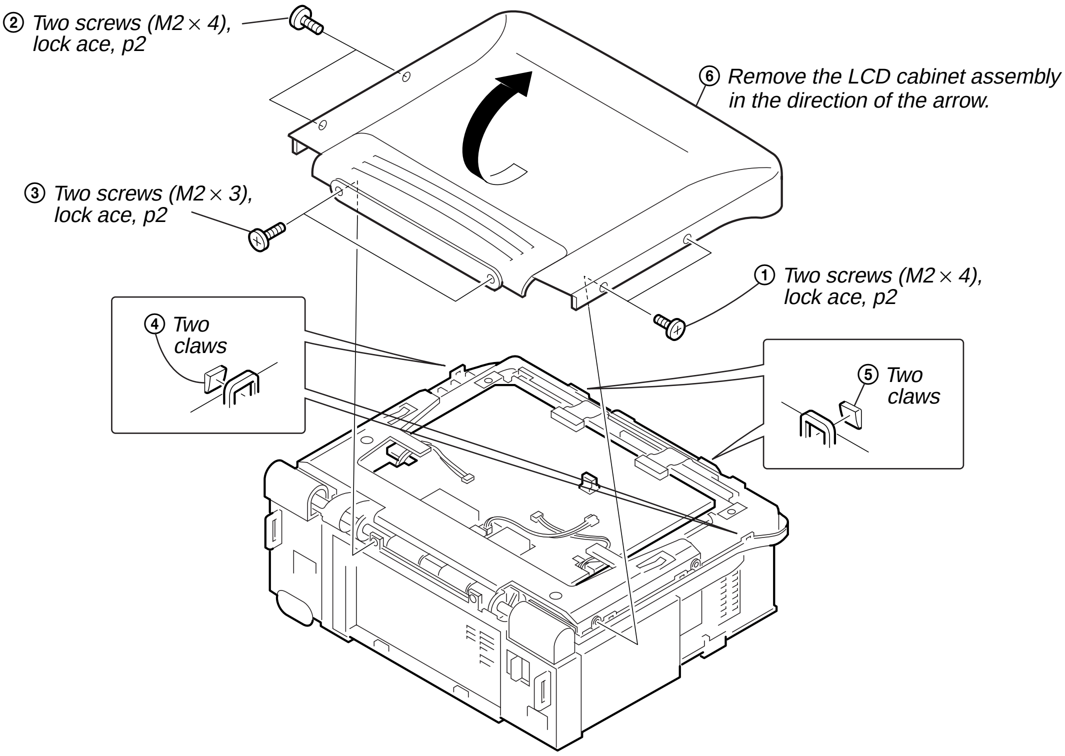
2-1. CASSETTE LID ASSEMBLY


② Two screws (M2 × 4), lock ace, p2
① Open the LCD panel in the direction of the arrow Ⓐ. (GV-D800/D800E model)
⑥ Cassette lid assembly
Push
⑤ Claw
④ Three dowels
Ⓐ
③ Press the cassette EJECT knob to open the cassette compartment.

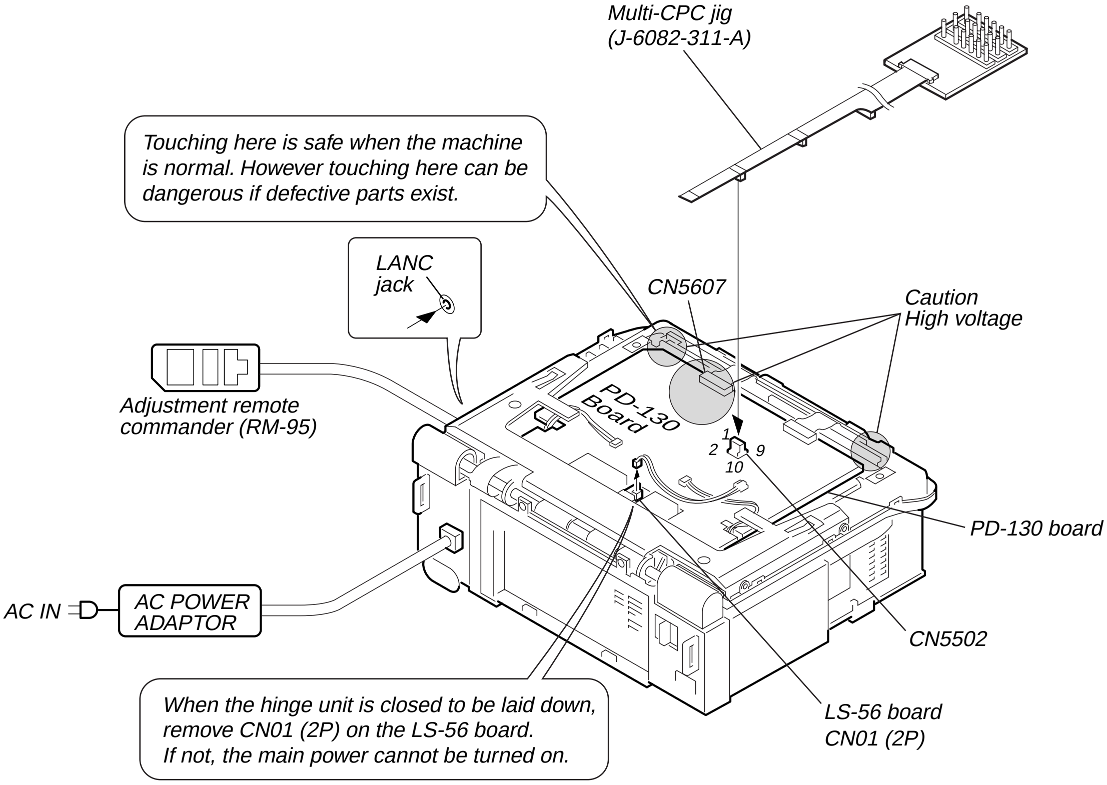
2-2. BOTTOM CABINET ASSEMBLY, FP-571 FLEXIBLE BOARD (LITHIUM BATTERY)


⑦ Bottom cabinet assembly
③ Three screws (M2 × 4), lock ace, p2
④ Two screws (M2 × 4), lock ace, p2
⑥ Open the jack lid assembly in the direction of the arrow Ⓑ.
Ⓑ
② Press the release button to remove the cabinet lid assembly in the direction of the arrow Ⓐ.
⑤ Screw (M2 × 4), lock ace, p2
Ⓐ
VC-250 Board
⑩ FP-571 flexible board (4P)
⑧ Tapping screw (+k 2 ×5)
Ⓒ
① Open the LCD panel little. (GV-D800/D800E model)
⑨ Remove the lithium lid in the direction of the arrow Ⓒ.

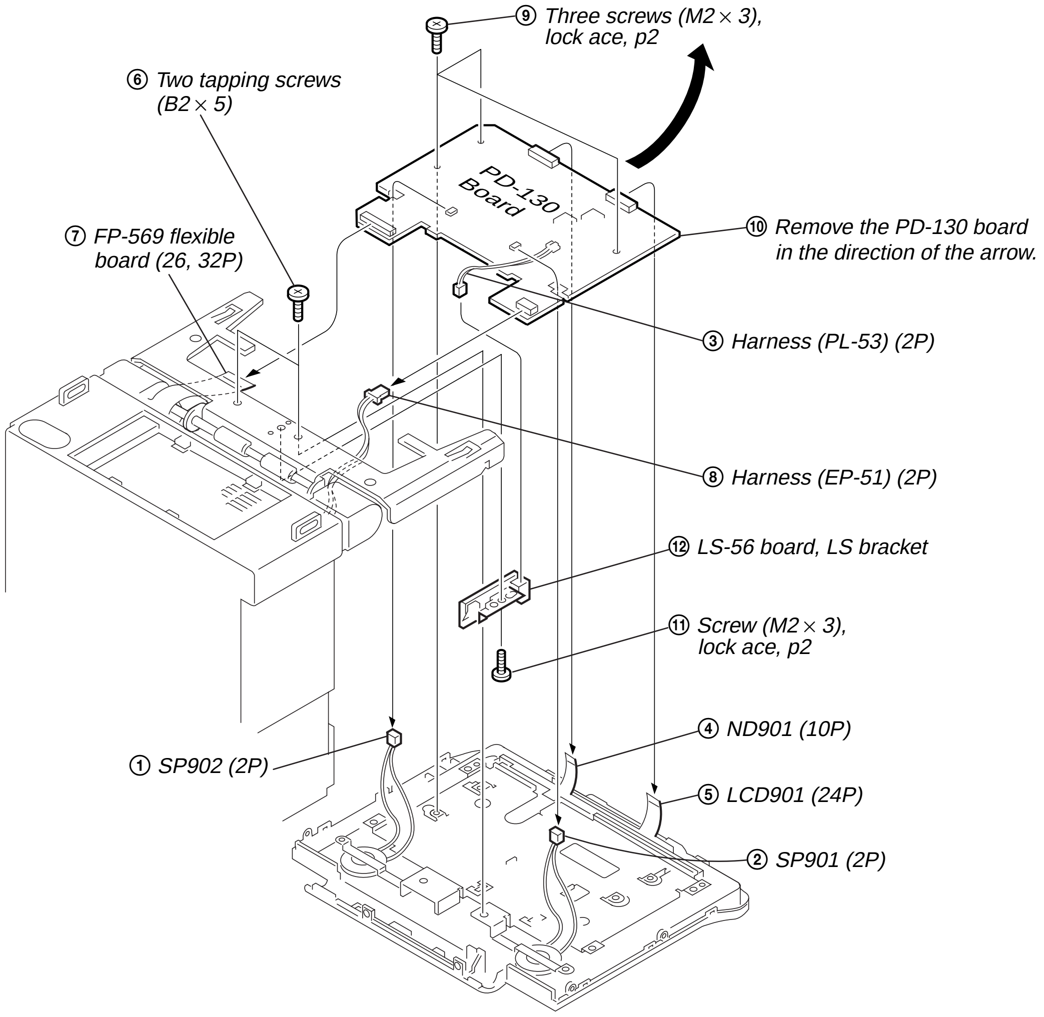
2-3. LCD CABINET ASSEMBLY (D800, D800E MODEL)


② Two screws (M2 × 4), lock ace, p2
⑥ Remove the LCD cabinet assembly in the direction of the arrow.
③ Two screws (M2 × 3), lock ace, p2
① Two screws (M2 × 4), lock ace, p2
④ Two claws
⑤ Two claws

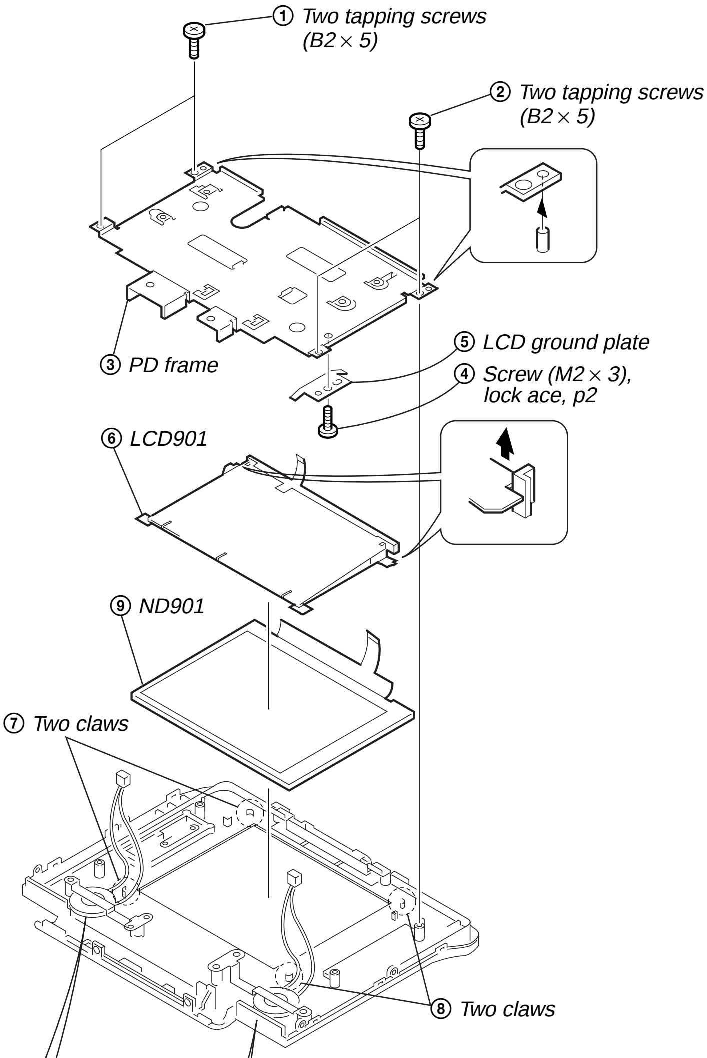
[PD-130 BOARD SERVICE POSITION] (D800, D800E MODEL)


Multi-CPC jig (J-6082-311-A)
Touching here is safe when the machine is normal. However touching here can be dangerous if defective parts exist.
LANC jack
CN5607
Caution High voltage
Adjustment remote commander (RM-95)
PD-130 Board
1
2
9
10
PD-130 board
AC IN
AC POWER ADAPTOR
CN5502
When the hinge unit is closed to be laid down, remove CN01 (2P) on the LS-56 board. If not, the main power cannot be turned on.
LS-56 board CN01 (2P)

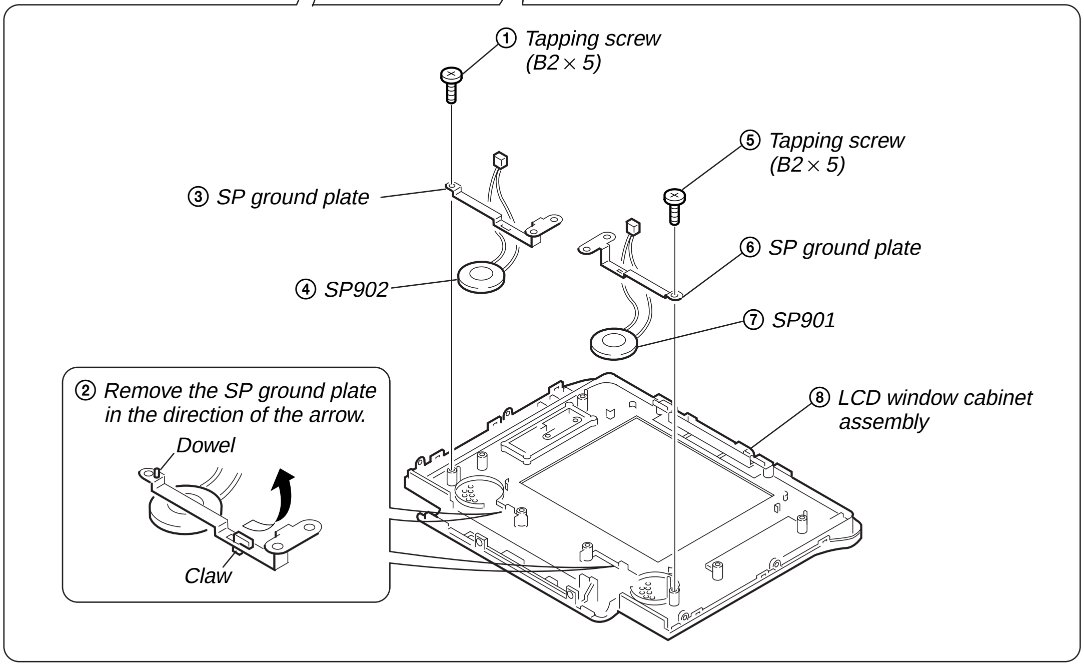
2-4. PD-130, LS-56 BOARDS (D800, D800E MODEL)


⑨ Three screws (M2 × 3), lock ace, p2
⑥ Two tapping screws (B2 × 5)
PD-130 Board
⑦ FP-569 flexible board (26, 32P)
⑩ Remove the PD-130 board in the direction of the arrow.
③ Harness (PL-53) (2P)
⑧ Harness (EP-51) (2P)
⑫ LS-56 board, LS bracket
⑪ Screw (M2 × 3), lock ace, p2
④ ND901 (10P)
① SP902 (2P)
⑤ LCD901 (24P)
② SP901 (2P)

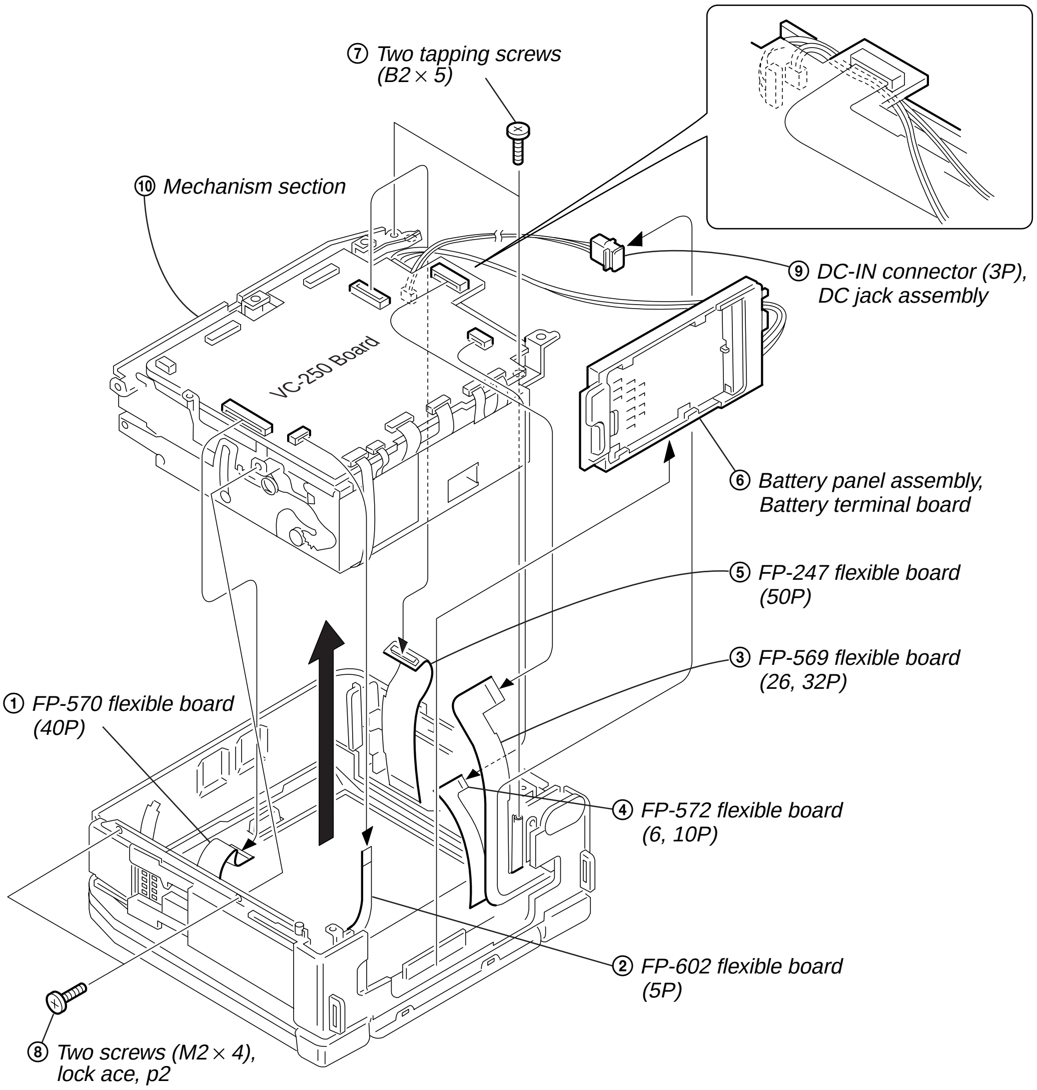
2-5. LCD WINDOW CABINET ASSEMBLY (SP-901, 902)(D800, D800E MODEL)


① Two tapping screws (B2 × 5)
② Two tapping screws (B2 × 5)
③ PD frame
⑤ LCD ground plate
④ Screw (M2 × 3), lock ace, p2
⑥ LCD901
⑨ ND901
⑦ Two claws
⑧ Two claws

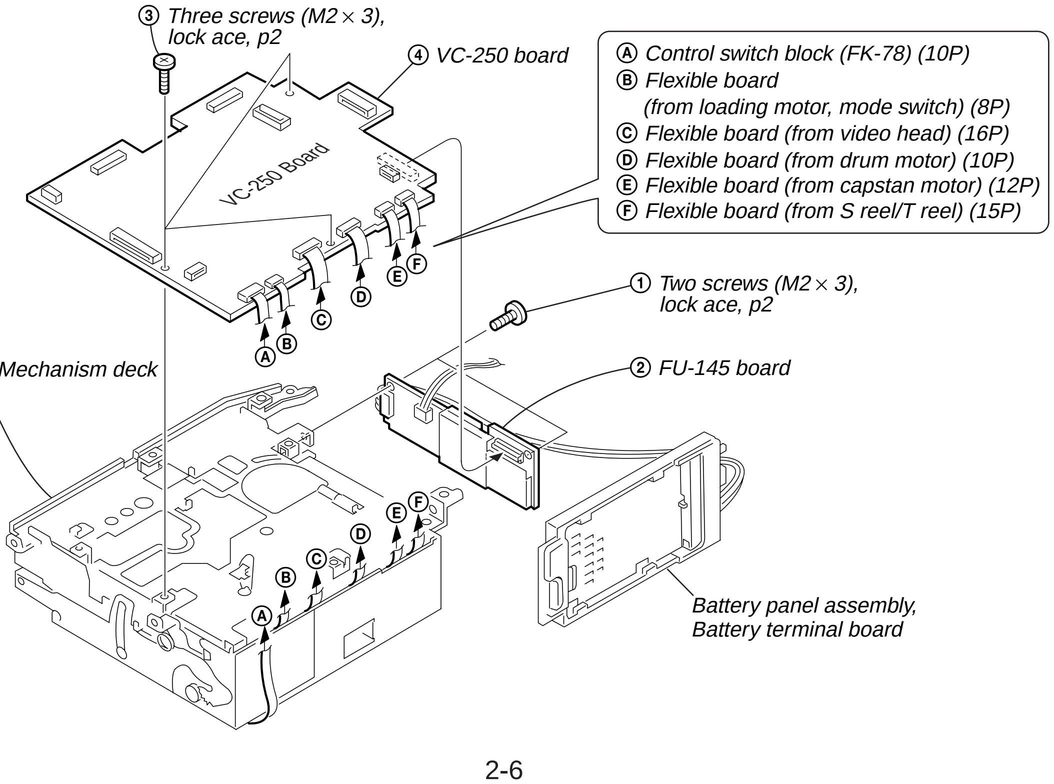
REMOVING THE LCD WINDOW CABINET ASSEMBLY (SP901, 902)


① Tapping screw (B2 × 5)
⑤ Tapping screw (B2 × 5)
③ SP ground plate
⑥ SP ground plate
④ SP902
⑦ SP901
② Remove the SP ground plate in the direction of the arrow.
Dowel
Claw
⑧ LCD window cabinet assembly

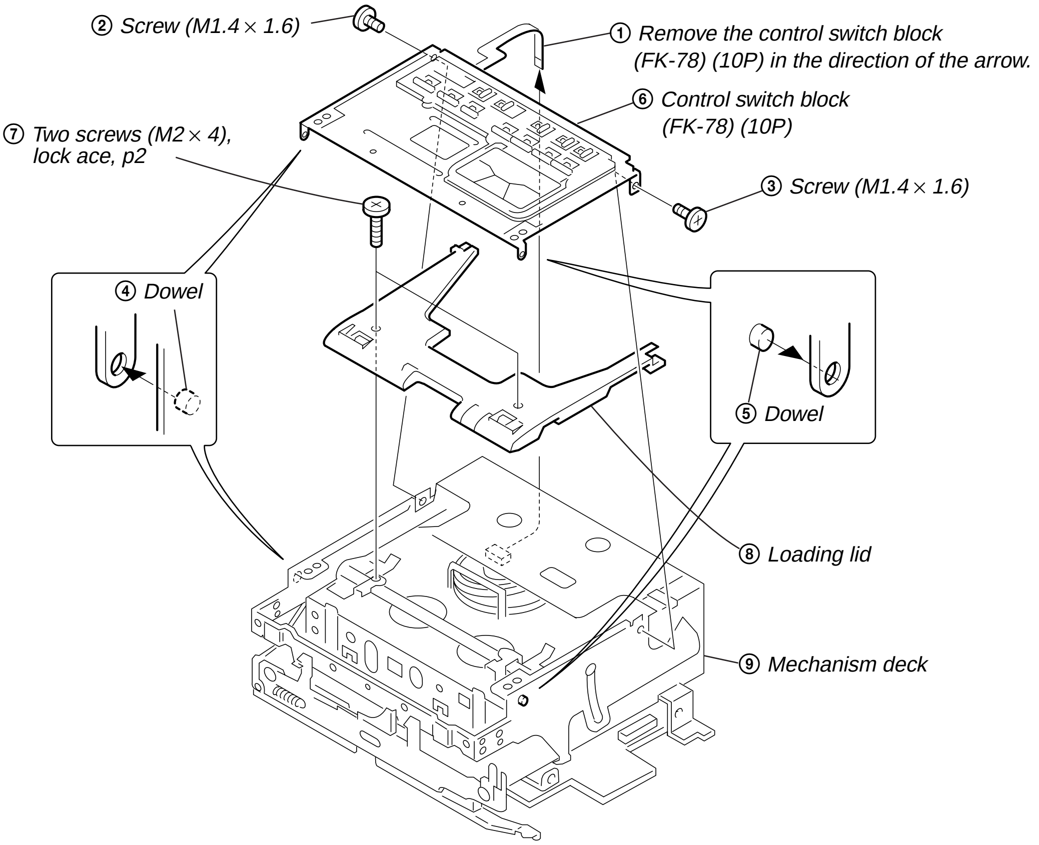
2-6. BATTERY PANEL ASSEMBLY, BATTERY TERMINAL BOARD, DC-IN CONNECTOR


⑦ Two tapping screws (B2 × 5)
⑩ Mechanism section
VC-250 Board
⑨ DC-IN connector (3P), DC jack assembly
⑥ Battery panel assembly, Battery terminal board
⑤ FP-247 flexible board (50P)
③ FP-569 flexible board (26, 32P)
① FP-570 flexible board (40P)
④ FP-572 flexible board (6, 10P)
② FP-602 flexible board (5P)
⑧ Two screws (M2 × 4), lock ace, p2

2-7. VC-250, FU-145 BOARDS

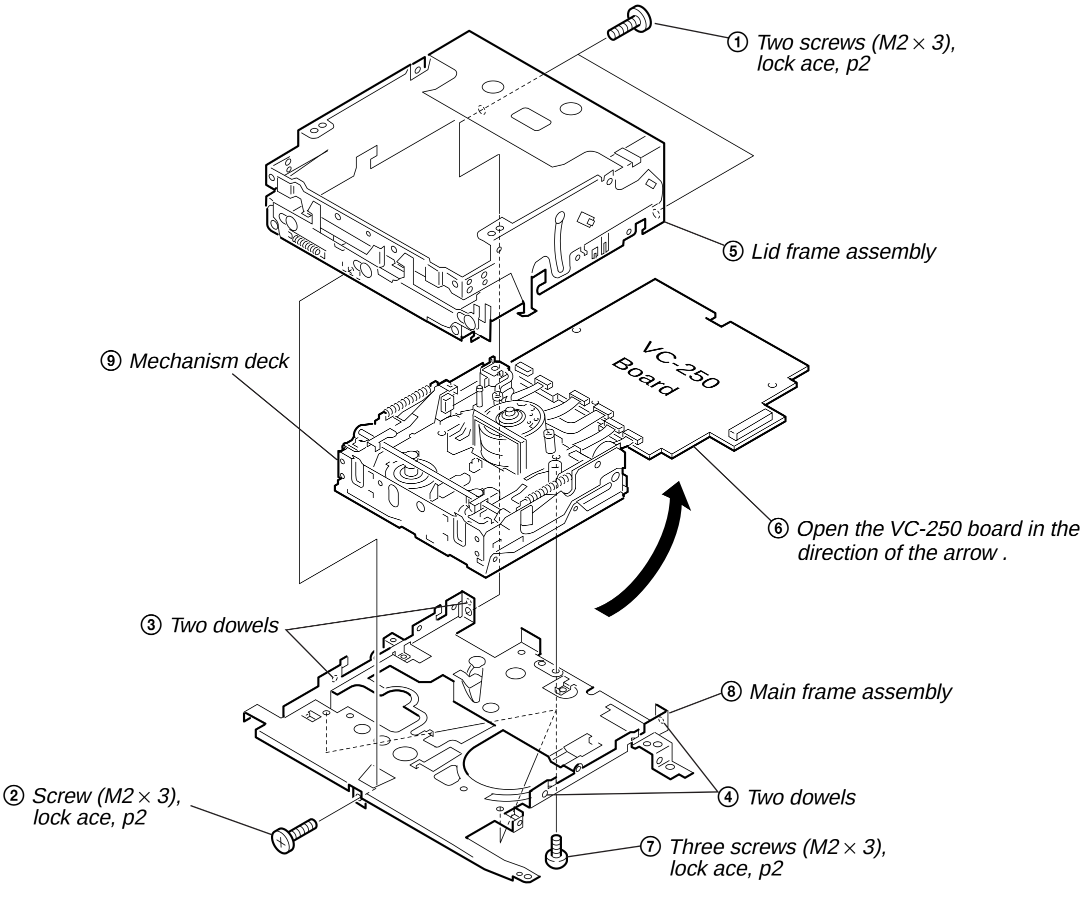

③ Three screws (M2 × 3), lock ace, p2
④ VC-250 board
VC-250 Board
Ⓐ Control switch block (FK-78) (10P)
Ⓑ Flexible board (from loading motor, mode switch) (8P)
Ⓒ Flexible board (from video head) (16P)
Ⓓ Flexible board (from drum motor) (10P)
Ⓔ Flexible board (from capstan motor) (12P)
Ⓕ Flexible board (from S reel/T reel) (15P)
Ⓐ
Ⓑ
Ⓒ
Ⓓ
Ⓔ
Ⓕ
① Two screws (M2 × 3), lock ace, p2
② FU-145 board
⑤ Mechanism deck
Battery panel assembly, Battery terminal board

2-8. CONTROL SWITCH BLOCK (FK-78), LOADING LID



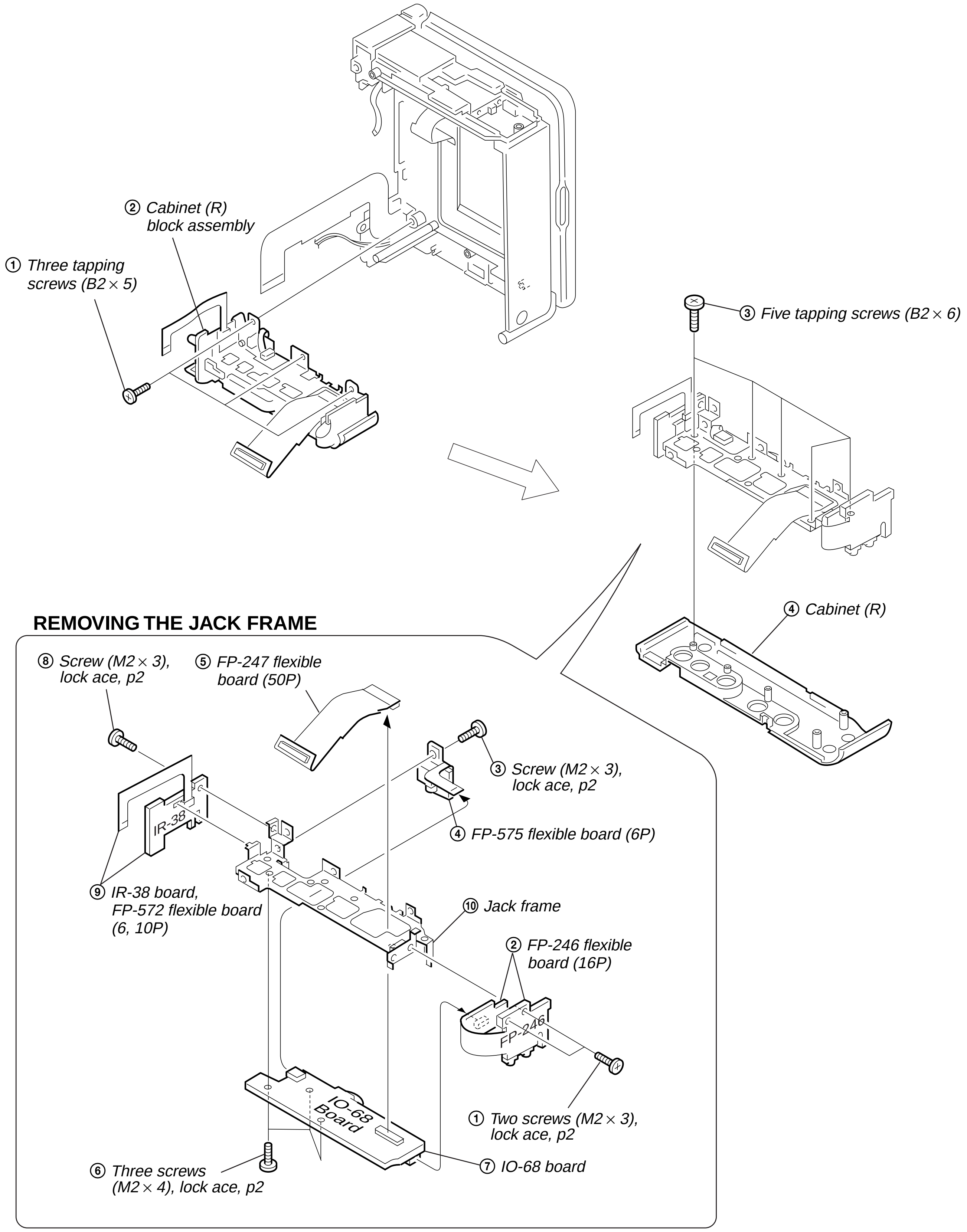
② Screw (M1.4 × 1.6)
① Remove the control switch block (FK-78) (10P) in the direction of the arrow.
⑥ Control switch block (FK-78) (10P)
⑦ Two screws (M2 × 4), lock ace, p2
③ Screw (M1.4 × 1.6)
④ Dowel
⑤ Dowel
⑧ Loading lid
⑨ Mechanism deck

2-9. MECHANISM DECK, MAIN FRAME ASSEMBLY



① Two screws (M2 × 3), lock ace, p2
⑤ Lid frame assembly
VC-250 Board
⑨ Mechanism deck
⑥ Open the VC-250 board in the direction of the arrow .
③ Two dowels
⑧ Main frame assembly
④ Two dowels
② Screw (M2 × 3), lock ace, p2
⑦ Three screws (M2 × 3), lock ace, p2

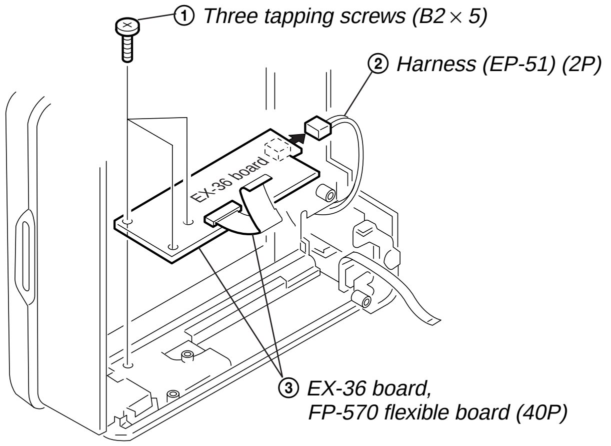
2-10. CABINET (R) BLOCK ASSEMBLY, JACK FRAME (IO-68, IR-38 BOARDS)



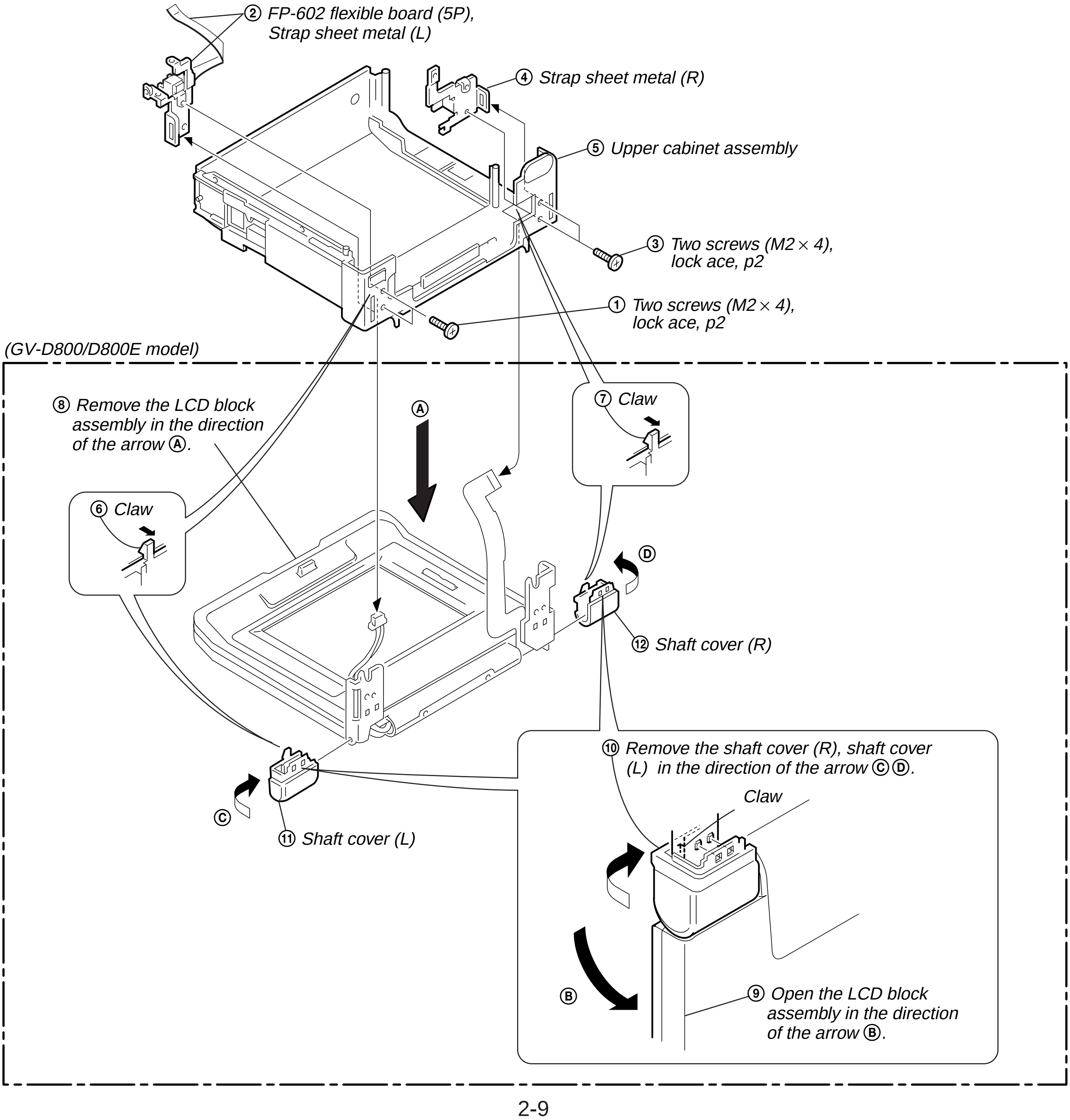
REMOVING THE JACK FRAME

② Cabinet (R) block assembly
① Three tapping screws (B2 × 5)
③ Five tapping screws (B2 × 6)
④ Cabinet (R)
⑧ Screw (M2 × 3), lock ace, p2
⑤ FP-247 flexible board (50P)
③ Screw (M2 × 3), lock ace, p2
IR-38
④ FP-575 flexible board (6P)
⑨ IR-38 board, FP-572 flexible board (6, 10P)
⑩ Jack frame
② FP-246 flexible board (16P)
FP-246
IO-68 Board
① Two screws (M2 × 3), lock ace, p2
⑥ Three screws (M2 × 4), lock ace, p2
⑦ IO-68 board

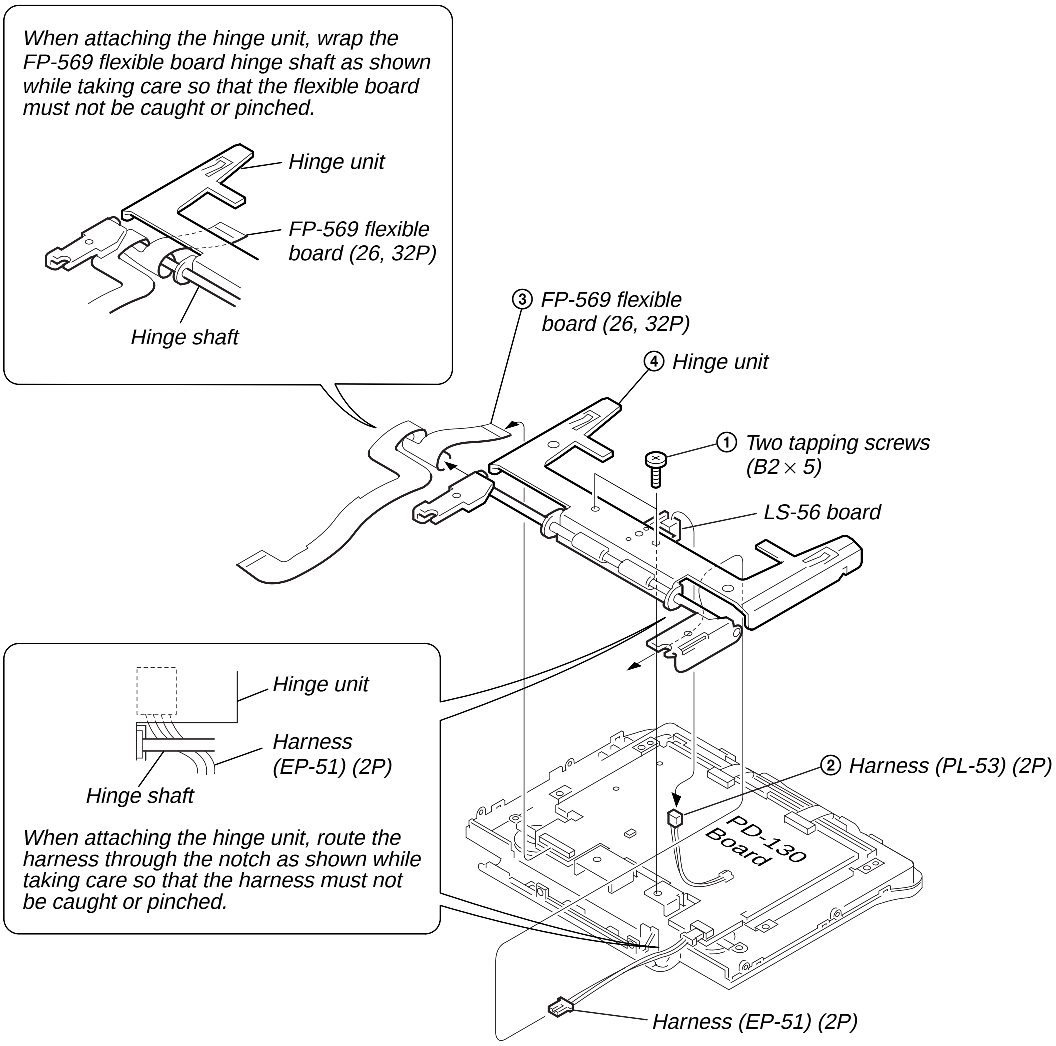
2-11. EX-36 BOARD, FP-570 FLEXIBLE BOARD


① Three tapping screws (B2 × 5)
② Harness (EP-51) (2P)
EX-36 board
③ EX-36 board,
FP-570 flexible board (40P)

2-12. UPPER CABINET ASSEMBLY, LCD BLOCK ASSEMBLY (D800, D800E MODEL)


② FP-602 flexible board (5P),
Strap sheet metal (L)
④ Strap sheet metal (R)
⑤ Upper cabinet assembly
③ Two screws (M2 × 4),
lock ace, p2
① Two screws (M2 × 4),
lock ace, p2
(GV-D800/D800E model)
⑧ Remove the LCD block
assembly in the direction
of the arrow Ⓐ.
Ⓐ
⑦ Claw
⑥ Claw
Ⓓ
⑫ Shaft cover (R)
⑩ Remove the shaft cover (R), shaft cover
(L) in the direction of the arrow Ⓒ Ⓓ.
Claw
Ⓒ
⑪ Shaft cover (L)
Ⓑ
⑨ Open the LCD block
assembly in the direction
of the arrow Ⓑ.

2-13. HINGE UNIT, FP-569 FLEXIBLE BOARD (D800, D800E MODEL)

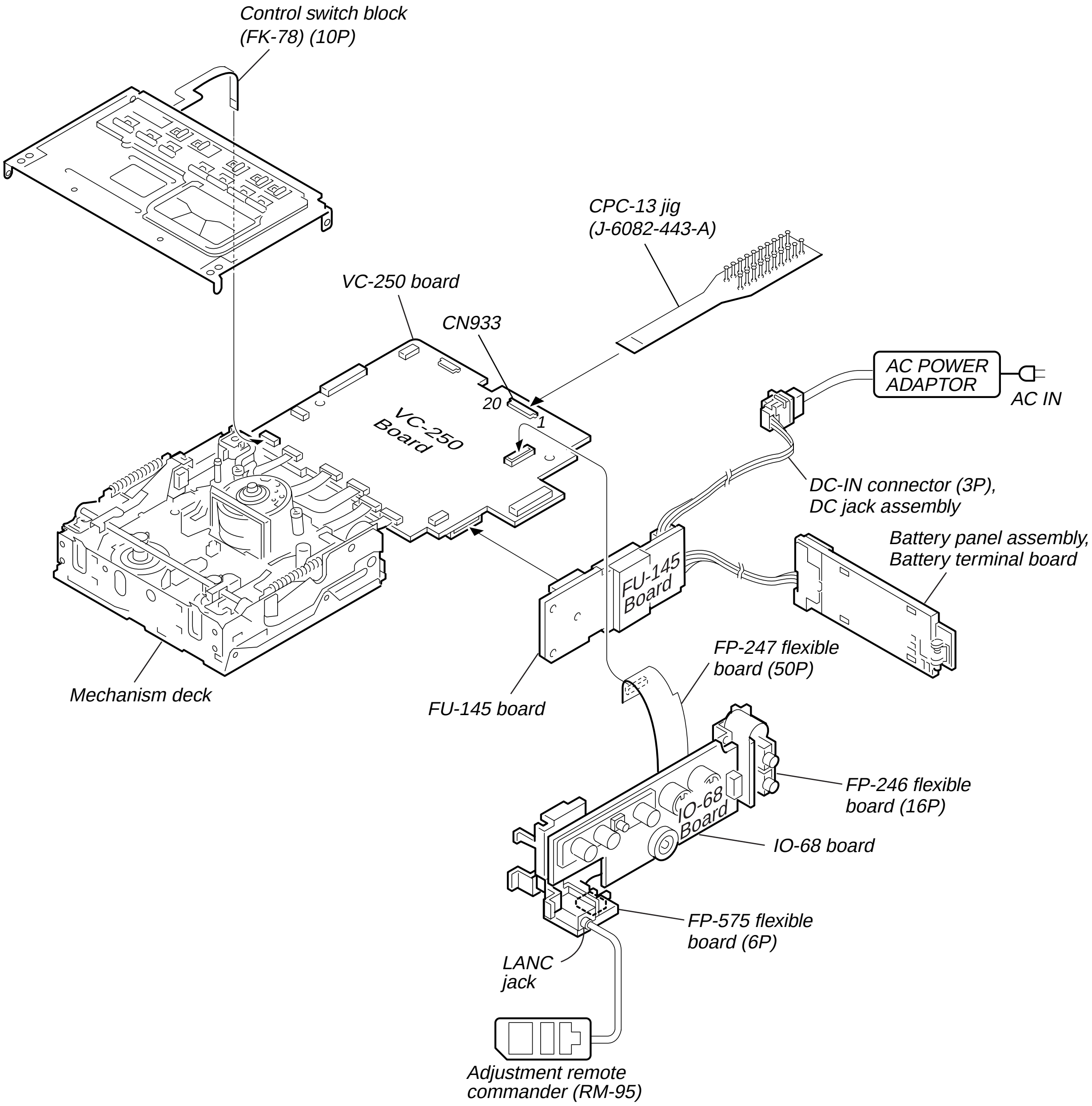


When attaching the hinge unit, wrap the FP-569 flexible board hinge shaft as shown while taking care so that the flexible board must not be caught or pinched.

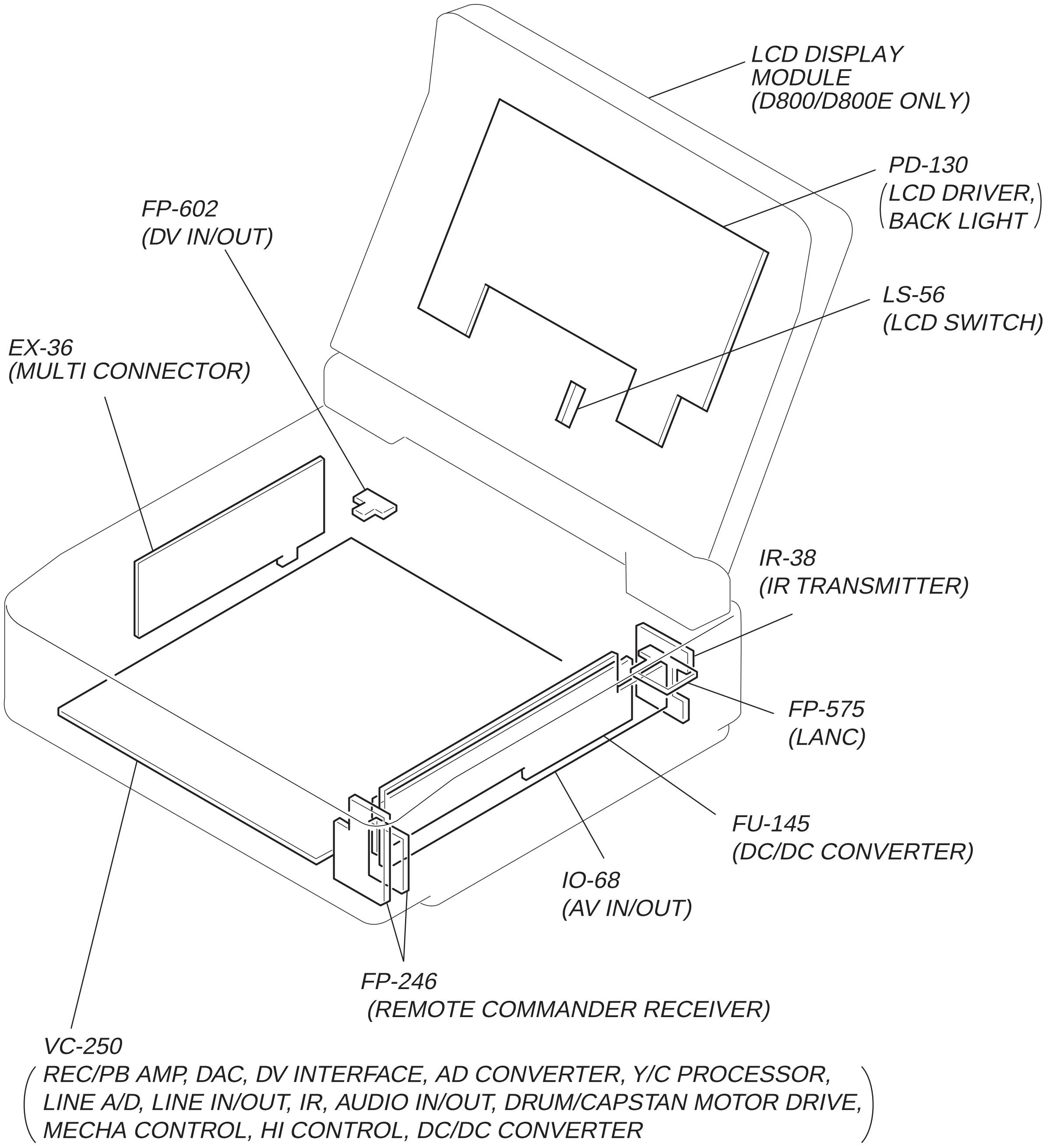
When attaching the hinge unit, route the harness through the notch as shown while taking care so that the harness must not be caught or pinched.

Hinge unit
FP-569 flexible board (26, 32P)
Hinge shaft
③ FP-569 flexible board (26, 32P)
④ Hinge unit
① Two tapping screws (B2 × 5)
LS-56 board
Hinge unit
Harness (EP-51) (2P)
Hinge shaft
② Harness (PL-53) (2P)
PD-130 Board
Harness (EP-51) (2P)

[CONNECTION DIAGRAM FOR SERVICE POSITION (Mainly for voltage measurement and check)]
(VC-250, FU-145, IO-68 BOARDS, MECHANISM DECK)

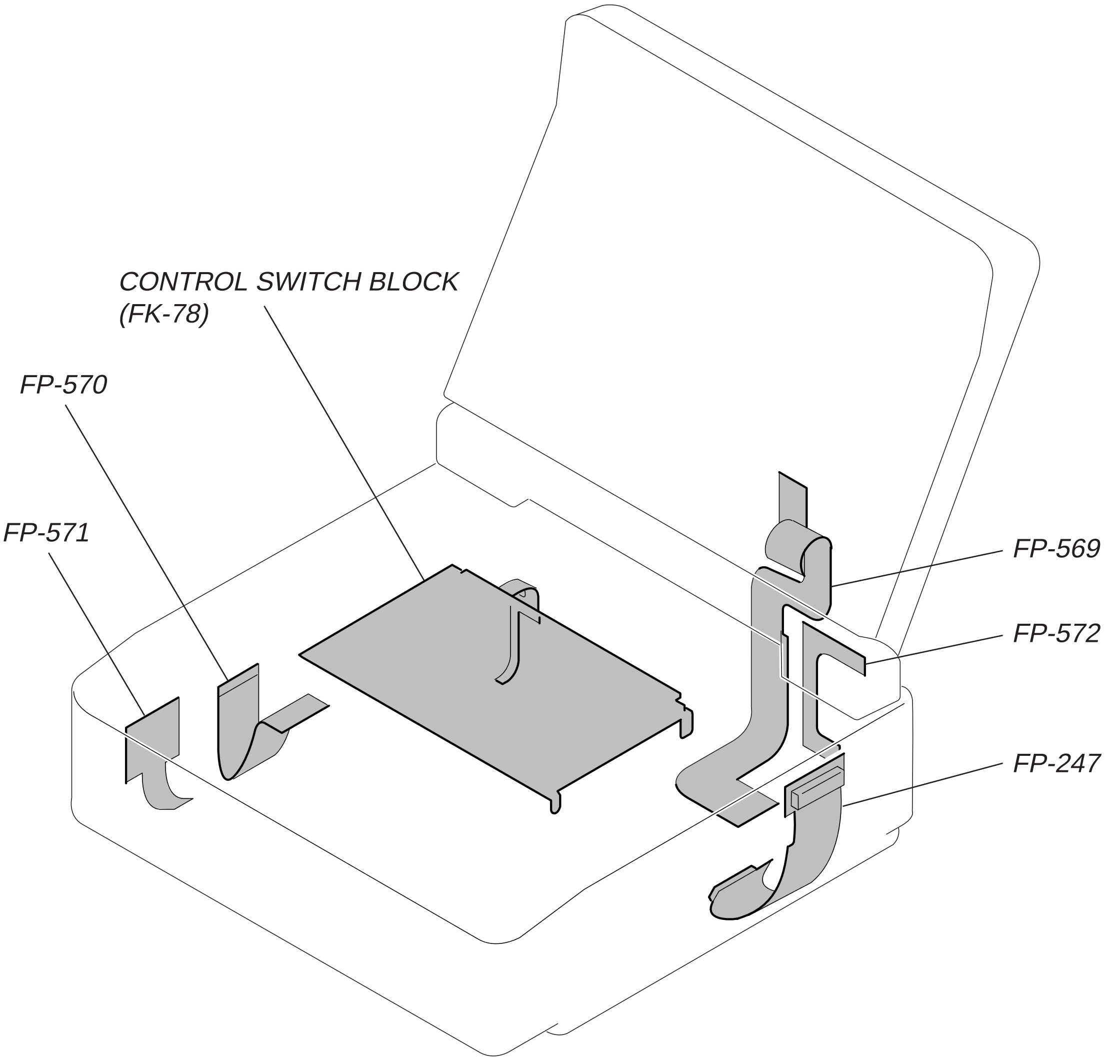

Control switch block
(FK-78) (10P)
CPC-13 jig
(J-6082-443-A)
VC-250 board
CN933
AC POWER
ADAPTOR
AC IN
20
1
VC-250
Board
DC-IN connector (3P),
DC jack assembly
Battery panel assembly,
Battery terminal board
FU-145
Board
FP-247 flexible
board (50P)
Mechanism deck
FU-145 board
FP-246 flexible
board (16P)
IO-68
Board
IO-68 board
FP-575 flexible
board (6P)
LANC
jack
Adjustment remote
commander (RM-95)

2-14. CIRCUIT BOARDS LOCATION


LCD DISPLAY MODULE (D800/D800E ONLY)
PD-130 (LCD DRIVER, BACK LIGHT)
FP-602 (DV IN/OUT)
LS-56 (LCD SWITCH)
EX-36 (MULTI CONNECTOR)
IR-38 (IR TRANSMITTER)
FP-575 (LANC)
FU-145 (DC/DC CONVERTER)
IO-68 (AV IN/OUT)
FP-246 (REMOTE COMMANDER RECEIVER)
VC-250 (REC/PB AMP, DAC, DV INTERFACE, AD CONVERTER, Y/C PROCESSOR, LINE A/D, LINE IN/OUT, IR, AUDIO IN/OUT, DRUM/CAPSTAN MOTOR DRIVE, MECHA CONTROL, HI CONTROL, DC/DC CONVERTER)

2-15. FLEXIBLE BOARDS LOCATION

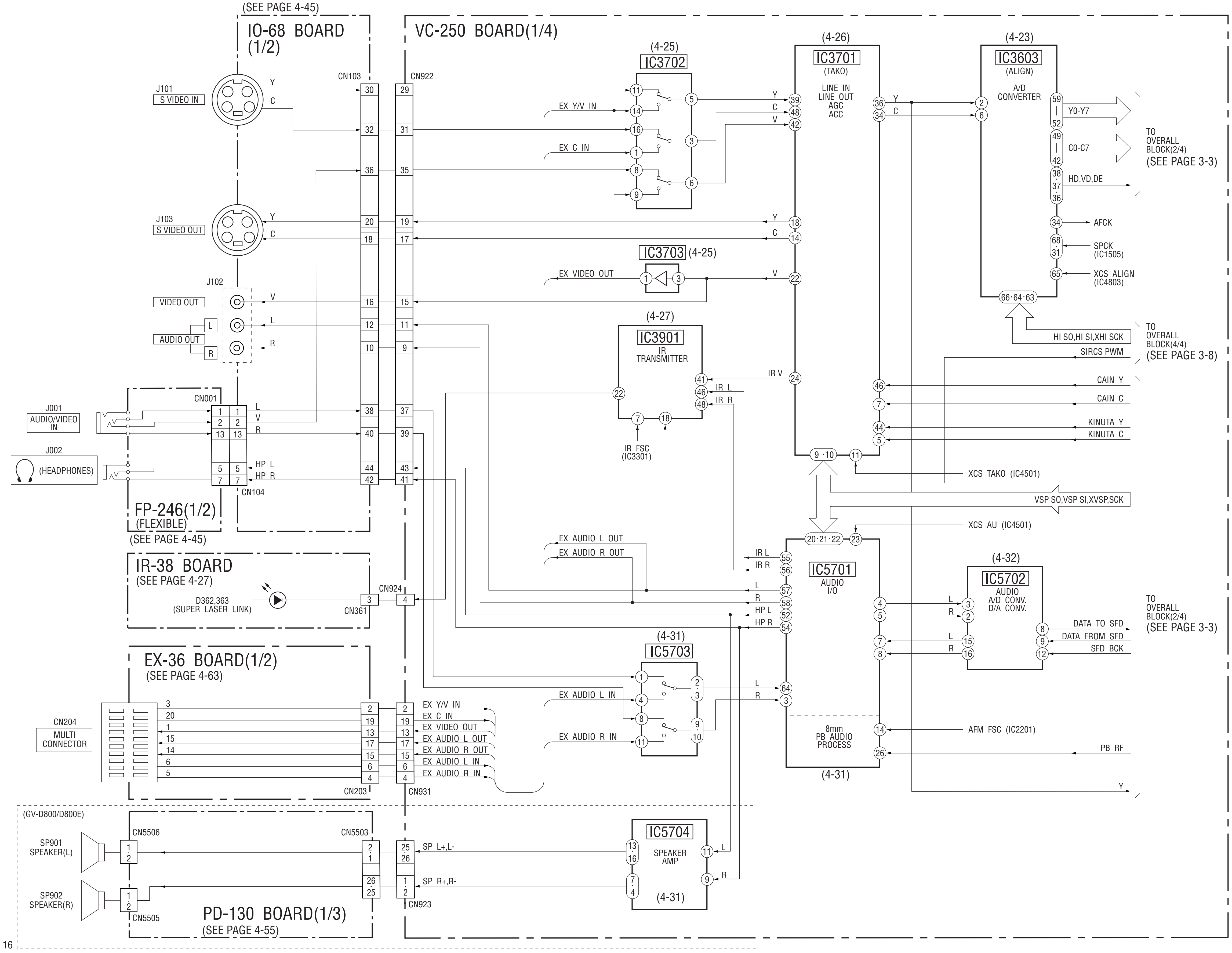
The flexible boards contained in the mechanism deck are not shown.


CONTROL SWITCH BLOCK
(FK-78)
FP-570
FP-571
FP-569
FP-572
FP-247

SECTION 3
BLOCK DIAGRAMS

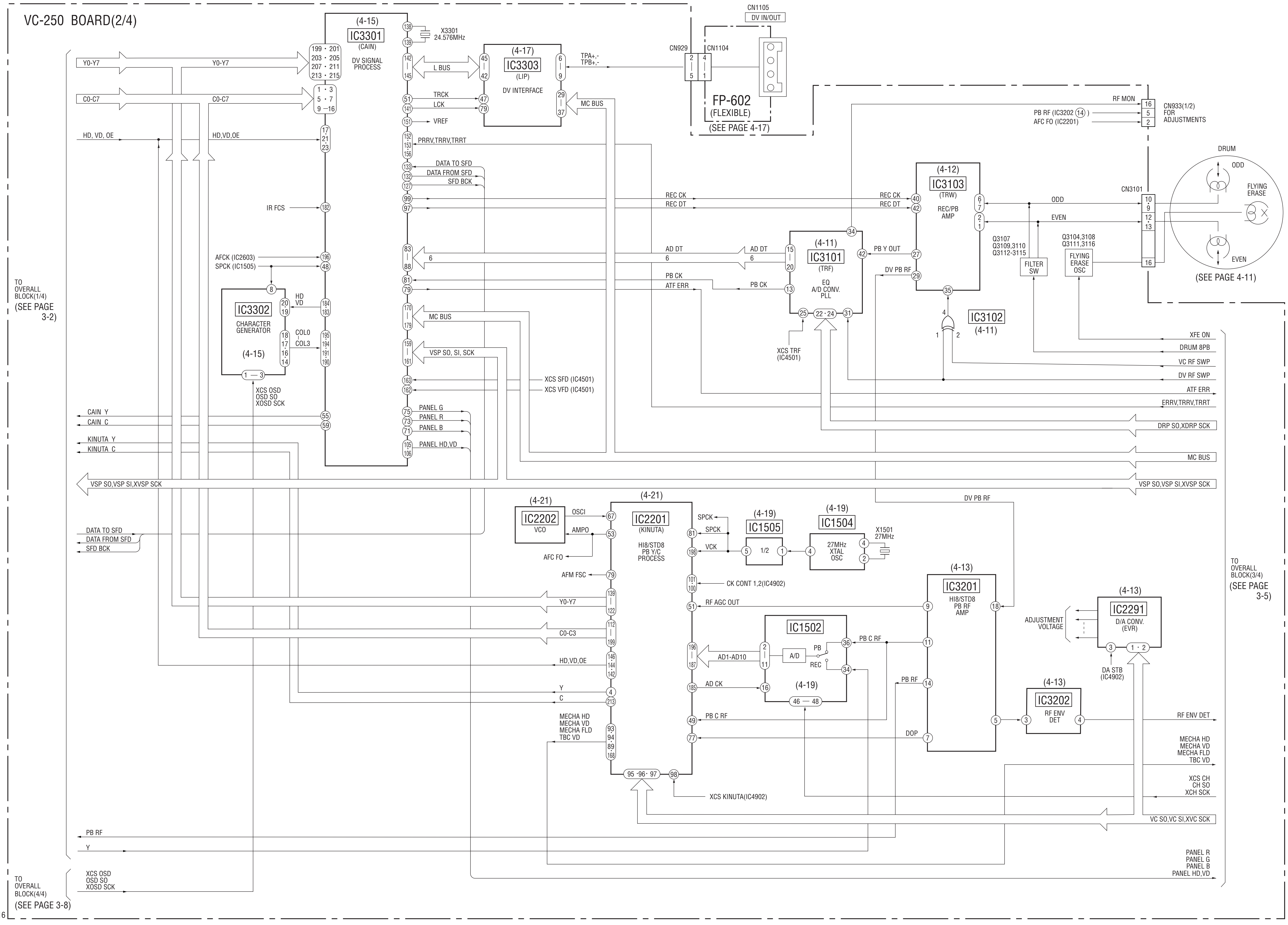
3-1. OVERALL BLOCK DIAGRAM (1/4)

( ) : Page No. shown in ( ) indicates the page to refer on the schematic diagram.


(SEE PAGE 4-45)
IO-68 BOARD (1/2)
VC-250 BOARD(1/4)
J101
S VIDEO IN
Y
C
CN103
CN922
J103
S VIDEO OUT
J102
VIDEO OUT
AUDIO OUT
L
R
V
J001
AUDIO/VIDEO IN
J002
(HEADPHONES)
CN001
HP L
HP R
CN104
FP-246(1/2)
(FLEXIBLE)
(SEE PAGE 4-45)
IR-38 BOARD
(SEE PAGE 4-27)
D362,363
(SUPER LASER LINK)
CN924
CN361
EX-36 BOARD(1/2)
(SEE PAGE 4-63)
CN204
MULTI CONNECTOR
CN203
CN931
EX Y/V IN
EX C IN
EX VIDEO OUT
EX AUDIO L OUT
EX AUDIO R OUT
EX AUDIO L IN
EX AUDIO R IN
(GV-D800/D800E)
SP901
SPEAKER(L)
SP902
SPEAKER(R)
CN5506
CN5505
CN5503
CN923
SP L+,L-
SP R+,R-
PD-130 BOARD(1/3)
(SEE PAGE 4-55)
16
(4-25)
IC3702
IC3703 (4-25)
EX VIDEO OUT
(4-27)
IC3901
IR TRANSMITTER
IR FSC
(IC3301)
IR V
IR L
IR R
(4-26)
IC3701
(TAKO)
LINE IN
LINE OUT
AGC
ACC
(4-23)
IC3603
(ALIGN)
A/D CONVERTER
Y0-Y7
C0-C7
HD,VD,DE
AFCK
SPCK
(IC1505)
XCS ALIGN
(IC4803)
TO OVERALL BLOCK(2/4)
(SEE PAGE 3-3)
HI SO,HI SI,XHI SCK
SIRCS PWM
TO OVERALL BLOCK(4/4)
(SEE PAGE 3-8)
CAIN Y
CAIN C
KINUTA Y
KINUTA C
XCS TAKO (IC4501)
VSP SO,VSP SI,XVSP,SCK
XCS AU (IC4501)
IC5701
AUDIO I/O
HP L
HP R
8mm PB AUDIO PROCESS
(4-31)
(4-32)
IC5702
AUDIO A/D CONV. D/A CONV.
DATA TO SFD
DATA FROM SFD
SFD BCK
TO OVERALL BLOCK(2/4)
(SEE PAGE 3-3)
AFM FSC (IC2201)
PB RF
Y
(4-31)
IC5703
IC5704
SPEAKER AMP
(4-31)

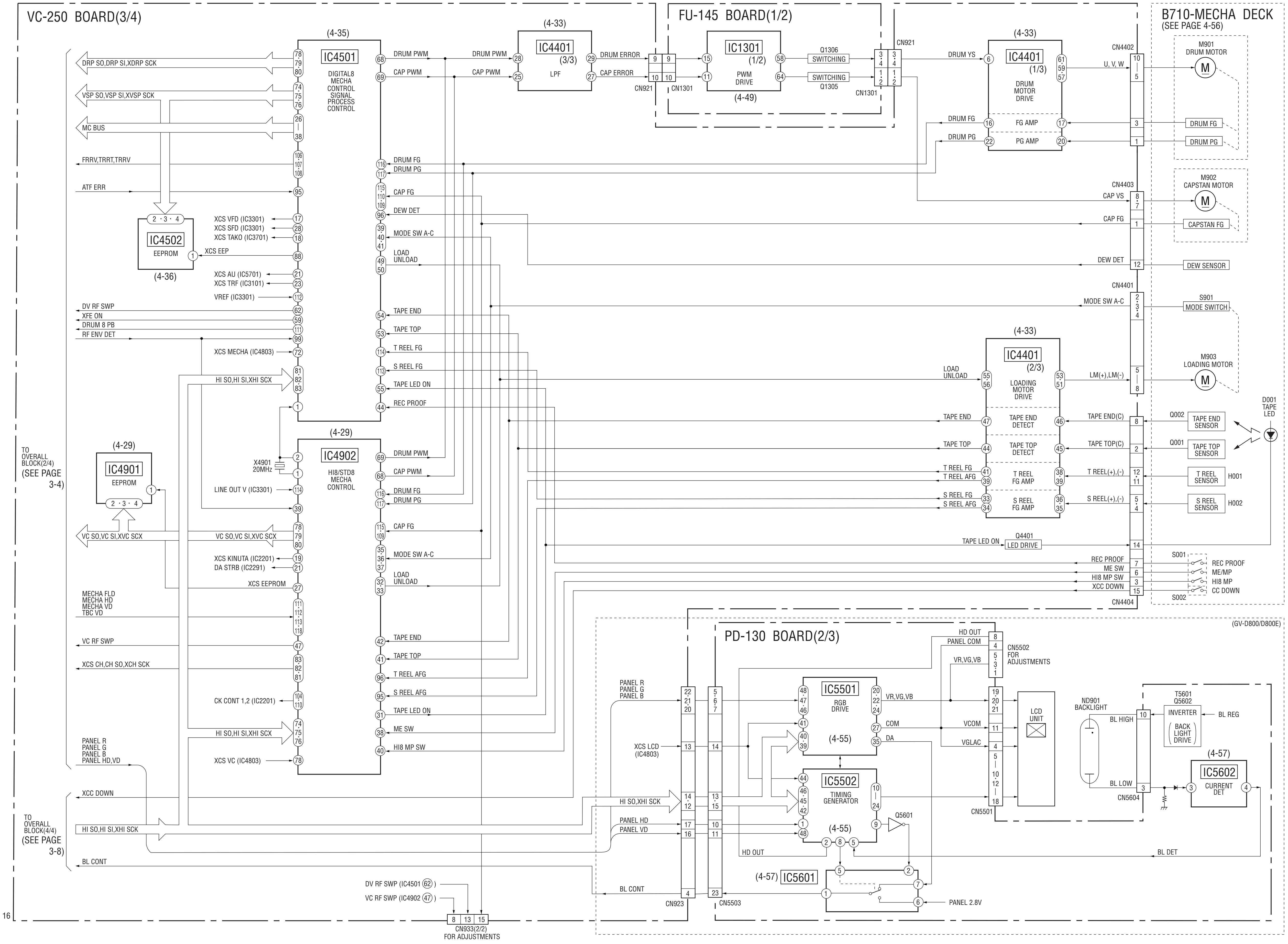
3-2. OVERALL BLOCK DIAGRAM (2/4)

( ) : Page No. shown in ( ) indicates the page to refer on the schematic diagram.


VC-250 BOARD(2/4)
IC3301 (CAIN) DV SIGNAL PROCESS (4-15)
X3301 24.576MHz
IC3303 (LIP) DV INTERFACE (4-17)
L BUS
TRCK
LCK
VREF
MC BUS
TPA+,- TPB+,-
CN929
CN1104
CN1105 DV IN/OUT
FP-602 (FLEXIBLE) (SEE PAGE 4-17)
Y0-Y7
C0-C7
HD, VD, OE
HD,VD,OE
PRRV,TRRV,TRRT
DATA TO SFD
DATA FROM SFD
SFD BCK
IR FCS
REC CK
REC DT
AD DT
PB CK
ATF ERR
AFCK (IC2603)
SPCK (IC1505)
IC3302 CHARACTER GENERATOR (4-15)
HD VD
COL0 COL3
XCS OSD OSD SO XOSD SCK
CAIN Y
CAIN C
KINUTA Y
KINUTA C
VSP SO, SI, SCK
XCS SFD (IC4501)
XCS VFD (IC4501)
PANEL G
PANEL R
PANEL B
PANEL HD,VD
VSP SO,VSP SI,XVSP SCK
TO OVERALL BLOCK(1/4) (SEE PAGE 3-2)
IC3101 (TRF) EQ A/D CONV. PLL (4-11)
XCS TRF (IC4501)
IC3103 (TRW) REC/PB AMP (4-12)
PB Y OUT
DV PB RF
IC3102 (4-11)
RF MON
CN933(1/2) FOR ADJUSTMENTS
PB RF (IC3202 14)
AFC FO (IC2201)
DRUM
ODD
EVEN
FLYING ERASE
CN3101
Q3107 Q3109,3110 Q3112-3115 FILTER SW
Q3104,3108 Q3111,3116 FLYING ERASE OSC
(SEE PAGE 4-11)
XFE ON
DRUM 8PB
VC RF SWP
DV RF SWP
ATF ERR
ERRV,TRRV,TRRT
DRP SO,XDRP SCK
MC BUS
VSP SO,VSP SI,XVSP SCK
DV PB RF
IC2202 VCO (4-21)
OSCI
AMPO
AFC FO
IC2201 (KINUTA) HI8/STD8 PB Y/C PROCESS (4-21)
SPCK
VCK
IC1505 1/2 (4-19)
IC1504 27MHz XTAL OSC (4-19)
X1501 27MHz
AFM FSC
CK CONT 1,2(IC4902)
RF AGC OUT
Y0-Y7
C0-C3
HD,VD,OE
IC1502 A/D PB REC (4-19)
AD1-AD10
AD CK
PB C RF
Y
C
MECHA HD MECHA VD MECHA FLD TBC VD
XCS KINUTA(IC4902)
IC3201 HI8/STD8 PB RF AMP (4-13)
PB RF
DOP
IC2291 D/A CONV. (EVR) (4-13)
ADJUSTMENT VOLTAGE
DA STB (IC4902)
IC3202 RF ENV DET (4-13)
RF ENV DET
MECHA HD MECHA VD MECHA FLD TBC VD
XCS CH CH SO XCH SCK
VC SO,VC SI,XVC SCK
PANEL R PANEL G PANEL B PANEL HD,VD
TO OVERALL BLOCK(3/4) (SEE PAGE 3-5)
DATA TO SFD
DATA FROM SFD
SFD BCK
PB RF
Y
XCS OSD OSD SO XOSD SCK
TO OVERALL BLOCK(4/4) (SEE PAGE 3-8)
16

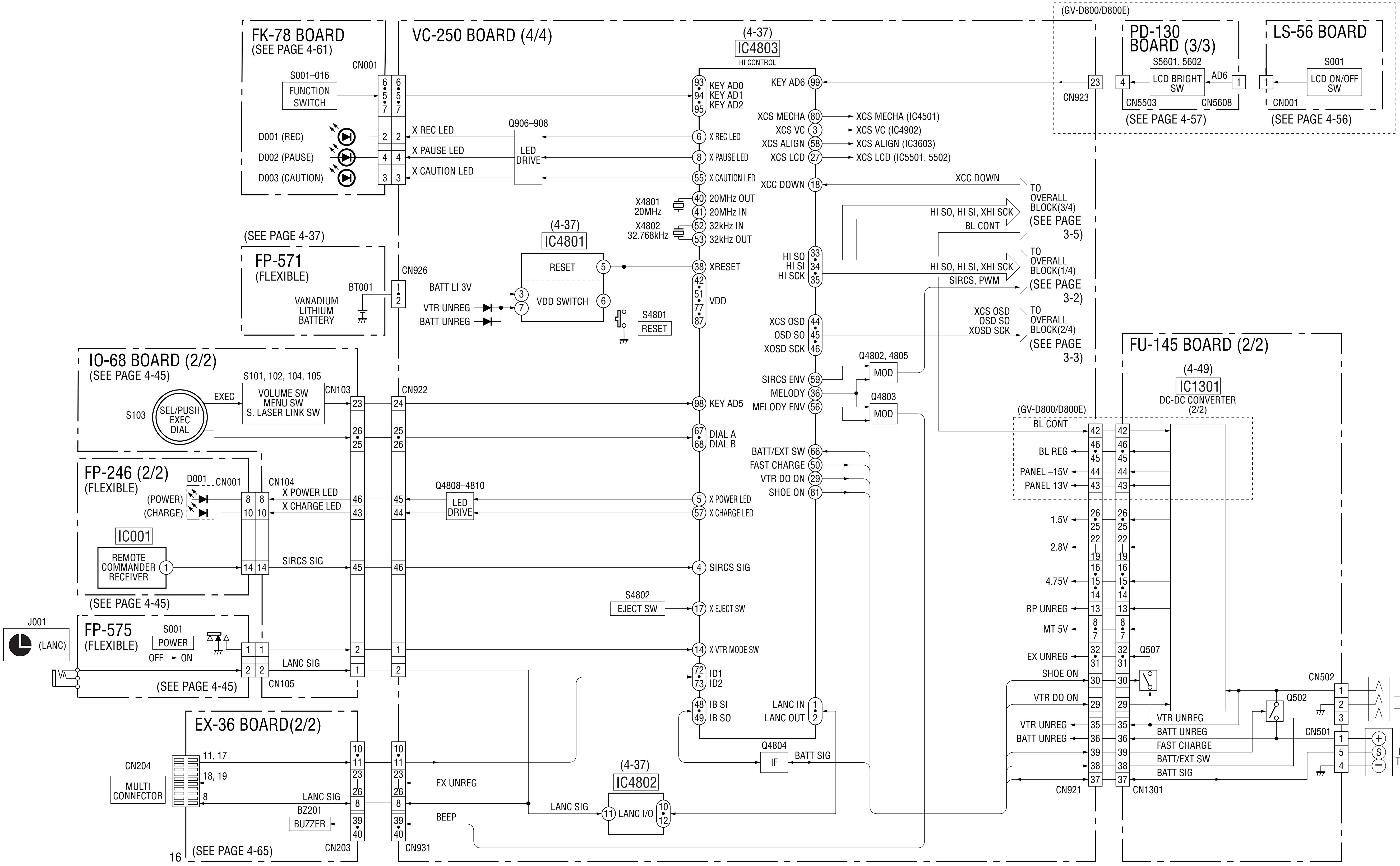
3-3. OVERALL BLOCK DIAGRAM (3/4)

( ) : Page No. shown in ( ) indicates the page to refer on the schematic diagram.


VC-250 BOARD(3/4)
FU-145 BOARD(1/2)
B710-MECHA DECK
(SEE PAGE 4-56)
PD-130 BOARD(2/3)
(GV-D800/D800E)
IC4501 (4-35)
DIGITAL8 MECHA CONTROL SIGNAL PROCESS CONTROL
IC4401 (3/3) (4-33)
LPF
IC1301 (1/2) (4-49)
PWM DRIVE
Q1306 SWITCHING
Q1305 SWITCHING
IC4401 (1/3) (4-33)
DRUM MOTOR DRIVE
FG AMP
PG AMP
M901 DRUM MOTOR
M902 CAPSTAN MOTOR
M903 LOADING MOTOR
DRUM FG
DRUM PG
CAPSTAN FG
DEW SENSOR
S901 MODE SWITCH
IC4401 (2/3) (4-33)
LOADING MOTOR DRIVE
TAPE END DETECT
TAPE TOP DETECT
T REEL FG AMP
S REEL FG AMP
Q002 TAPE END SENSOR
Q001 TAPE TOP SENSOR
H001 T REEL SENSOR
H002 S REEL SENSOR
D001 TAPE LED
Q4401 LED DRIVE
S001 REC PROOF
ME/MP
HI8 MP
S002 CC DOWN
IC4502 EEPROM (4-36)
IC4901 EEPROM (4-29)
IC4902 (4-29)
HI8/STD8 MECHA CONTROL
X4901 20MHz
DRP SO,DRP SI,XDRP SCK
VSP SO,VSP SI,XVSP SCK
MC BUS
FRRV,TRRT,TRRV
ATF ERR
XCS VFD (IC3301)
XCS SFD (IC3301)
XCS TAKO (IC3701)
XCS EEP
XCS AU (IC5701)
XCS TRF (IC3101)
VREF (IC3301)
DV RF SWP
XFE ON
DRUM 8 PB
RF ENV DET
XCS MECHA (IC4803)
HI SO,HI SI,XHI SCK
LINE OUT V (IC3301)
VC SO,VC SI,XVC SCX
XCS KINUTA (IC2201)
DA STRB (IC2291)
XCS EEPROM
MECHA FLD
MECHA HD
MECHA VD
TBC VD
VC RF SWP
XCS CH,CH SO,XCH SCK
CK CONT 1,2 (IC2201)
XCS VC (IC4803)
PANEL R
PANEL G
PANEL B
PANEL HD,VD
XCC DOWN
BL CONT
TO OVERALL BLOCK(2/4) (SEE PAGE 3-4)
TO OVERALL BLOCK(4/4) (SEE PAGE 3-8)
DRUM PWM
CAP PWM
DRUM ERROR
CAP ERROR
DRUM YS
U, V, W
CAP VS
CAP FG
DEW DET
MODE SW A-C
LOAD UNLOAD
LM(+),LM(-)
TAPE END
TAPE TOP
T REEL FG
T REEL AFG
S REEL FG
S REEL AFG
TAPE END(C)
TAPE TOP(C)
T REEL(+),(-)
S REEL(+),(-)
TAPE LED ON
REC PROOF
ME SW
HI8 MP SW
XCC DOWN
CN921
CN1301
CN4401
CN4402
CN4403
CN4404
CN923
CN5503
CN5501
CN5502 FOR ADJUSTMENTS
CN5604
CN933(2/2) FOR ADJUSTMENTS
DV RF SWP (IC4501 62)
VC RF SWP (IC4902 47)
IC5501 (4-55)
RGB DRIVE
IC5502 (4-55)
TIMING GENERATOR
IC5601 (4-57)
IC5602 (4-57)
CURRENT DET
Q5601
T5601 Q5602
INVERTER
BACK LIGHT DRIVE
BL REG
BL HIGH
BL LOW
BL DET
ND901 BACKLIGHT
LCD UNIT
HD OUT
PANEL COM
VR,VG,VB
COM
DA
VCOM
VGLAC
XCS LCD (IC4803)
HI SO,XHI SCK
PANEL HD
PANEL VD
PANEL 2.8V
16

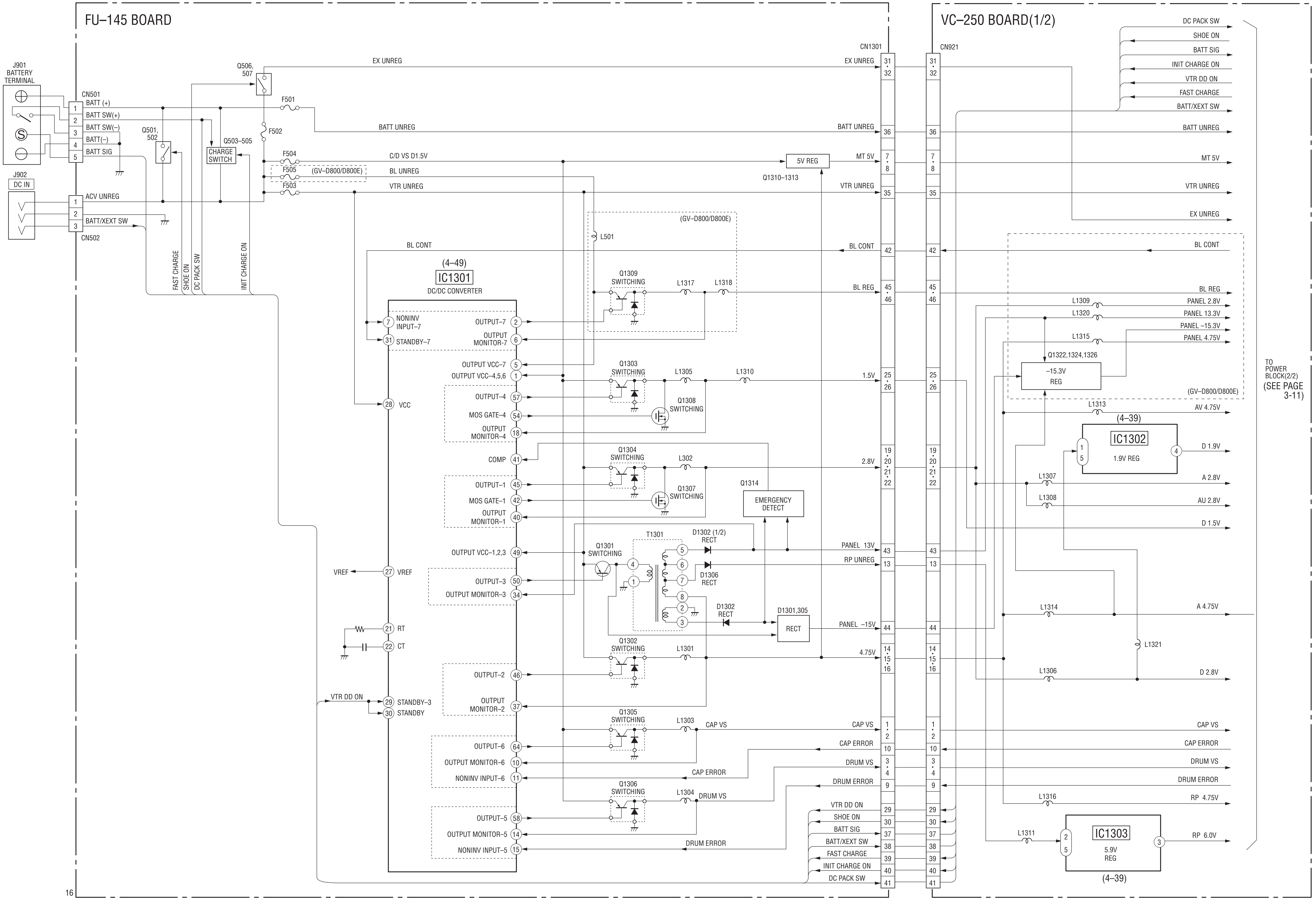
3-4. OVERALL BLOCK DIAGRAM (4/4)

( ) : Page No. shown in ( ) indicates the page to refer on the schematic diagram.


FK-78 BOARD
(SEE PAGE 4-61)
S001–016
FUNCTION SWITCH
CN001
D001 (REC)
D002 (PAUSE)
D003 (CAUTION)
X REC LED
X PAUSE LED
X CAUTION LED
Q906–908
LED DRIVE
VC-250 BOARD (4/4)
(4-37)
IC4803
HI CONTROL
KEY AD0
KEY AD1
KEY AD2
KEY AD6
X REC LED
X PAUSE LED
X CAUTION LED
XCS MECHA
XCS VC
XCS ALIGN
XCS LCD
XCS MECHA (IC4501)
XCS VC (IC4902)
XCS ALIGN (IC3603)
XCS LCD (IC5501, 5502)
XCC DOWN
X4801 20MHz
X4802 32.768kHz
20MHz OUT
20MHz IN
32kHz IN
32kHz OUT
XRESET
VDD
HI SO
HI SI
HI SCK
HI SO, HI SI, XHI SCK
BL CONT
TO OVERALL BLOCK(3/4) (SEE PAGE 3-5)
TO OVERALL BLOCK(1/4) (SEE PAGE 3-2)
SIRCS, PWM
XCS OSD
OSD SO
XOSD SCK
TO OVERALL BLOCK(2/4) (SEE PAGE 3-3)
(SEE PAGE 4-37)
FP-571
(FLEXIBLE)
BT001
VANADIUM LITHIUM BATTERY
CN926
BATT LI 3V
VTR UNREG
BATT UNREG
(4-37)
IC4801
RESET
VDD SWITCH
S4801
RESET
IO-68 BOARD (2/2)
(SEE PAGE 4-45)
S101, 102, 104, 105
VOLUME SW
MENU SW
S. LASER LINK SW
EXEC
S103
SEL/PUSH EXEC DIAL
CN103
CN922
KEY AD5
DIAL A
DIAL B
SIRCS ENV
MELODY
MELODY ENV
Q4802, 4805
MOD
Q4803
MOD
BATT/EXT SW
FAST CHARGE
VTR DO ON
SHOE ON
FP-246 (2/2)
(FLEXIBLE)
D001
(POWER)
(CHARGE)
CN001
CN104
X POWER LED
X CHARGE LED
Q4808–4810
LED DRIVE
X POWER LED
X CHARGE LED
IC001
REMOTE COMMANDER RECEIVER
SIRCS SIG
SIRCS SIG
(SEE PAGE 4-45)
S4802
EJECT SW
X EJECT SW
J001
(LANC)
FP-575
(FLEXIBLE)
S001
POWER
OFF → ON
LANC SIG
CN105
(SEE PAGE 4-45)
X VTR MODE SW
ID1
ID2
IB SI
IB SO
LANC IN
LANC OUT
EX-36 BOARD(2/2)
CN204
MULTI CONNECTOR
11, 17
18, 19
8
LANC SIG
BZ201
BUZZER
EX UNREG
BEEP
CN203
CN931
(SEE PAGE 4-65)
16
Q4804
IF
BATT SIG
(4-37)
IC4802
LANC SIG
LANC I/O
(GV-D800/D800E)
PD-130 BOARD (3/3)
S5601, 5602
LCD BRIGHT SW
AD6
CN923
CN5503
CN5608
(SEE PAGE 4-57)
LS-56 BOARD
S001
LCD ON/OFF SW
CN001
(SEE PAGE 4-56)
FU-145 BOARD (2/2)
(4-49)
IC1301
DC-DC CONVERTER (2/2)
(GV-D800/D800E)
BL CONT
BL REG
PANEL –15V
PANEL 13V
1.5V
2.8V
4.75V
RP UNREG
MT 5V
EX UNREG
SHOE ON
VTR DO ON
VTR UNREG
BATT UNREG
Q507
Q502
VTR UNREG
BATT UNREG
FAST CHARGE
BATT/EXT SW
BATT SIG
CN921
CN1301
CN502
J902
DC IN
CN501
J901
BATTERY TERMINAL

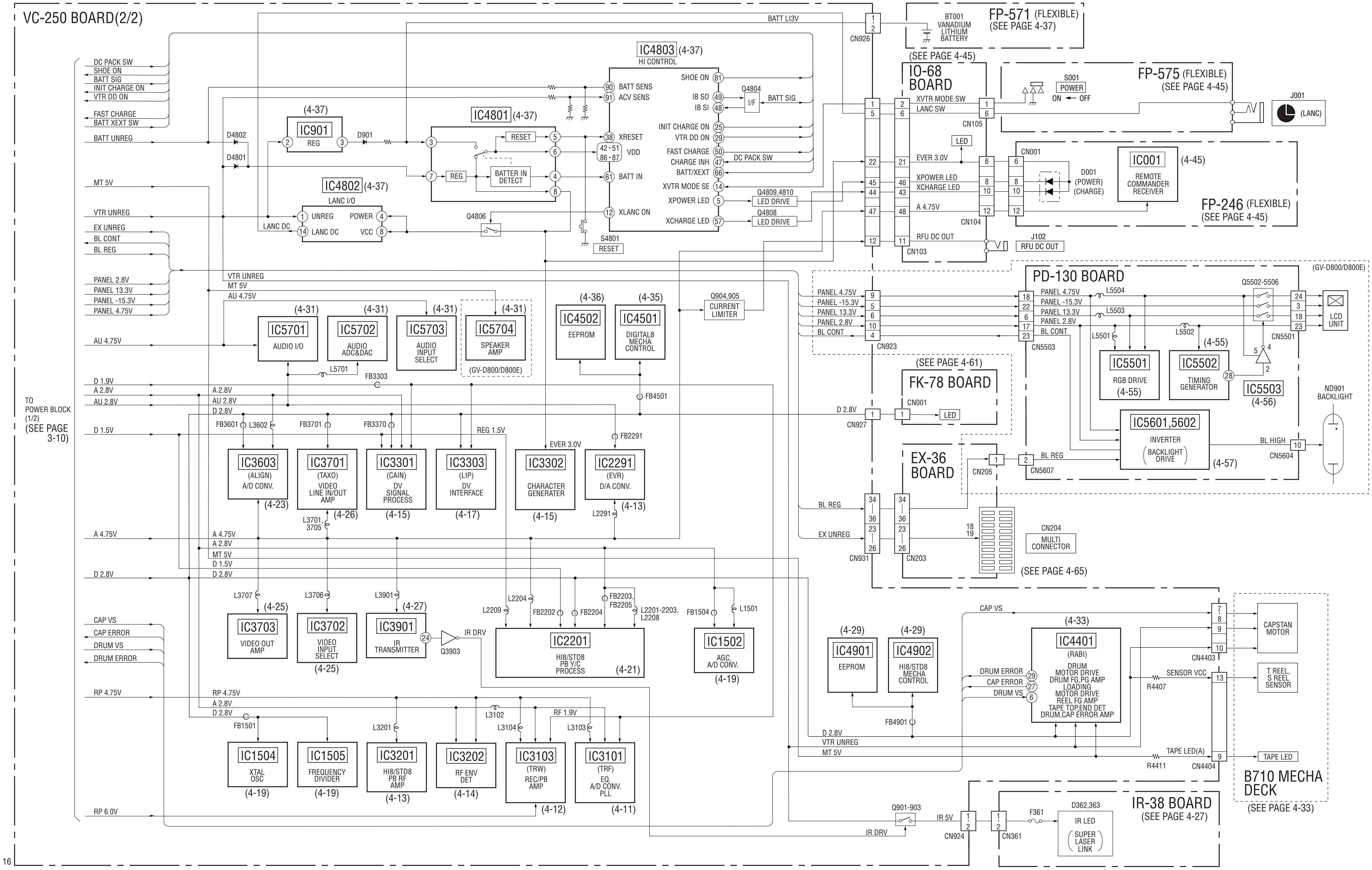
3-5. POWER BLOCK DIAGRAM (1/2)

( ) : Page No. shown in ( ) indicates the page to refer on the schematic diagram.


FU–145 BOARD
J901
BATTERY
TERMINAL
CN501
1 BATT (+)
2 BATT SW(+)
3 BATT SW(–)
4 BATT(–)
5 BATT SIG
J902
DC IN
1 ACV UNREG
2
3 BATT/XEXT SW
CN502
Q501,
502
Q506,
507
Q503–505
CHARGE
SWITCH
F501
F502
F504
F505
F503
(GV–D800/D800E)
EX UNREG
BATT UNREG
C/D VS D1.5V
BL UNREG
VTR UNREG
FAST CHARGE
SHOE ON
DC PACK SW
INIT CHARGE ON
5V REG
Q1310–1313
BL CONT
(4–49)
IC1301
DC/DC CONVERTER
NONINV
INPUT–7
STANDBY–7
OUTPUT–7
OUTPUT
MONITOR–7
OUTPUT VCC–7
OUTPUT VCC–4,5,6
VCC
OUTPUT–4
MOS GATE–4
OUTPUT
MONITOR–4
COMP
OUTPUT–1
MOS GATE–1
OUTPUT
MONITOR–1
OUTPUT VCC–1,2,3
VREF
VREF
OUTPUT–3
OUTPUT MONITOR–3
RT
CT
OUTPUT–2
OUTPUT
MONITOR–2
VTR DD ON
STANDBY–3
STANDBY
OUTPUT–6
OUTPUT MONITOR–6
NONINV INPUT–6
OUTPUT–5
OUTPUT MONITOR–5
NONINV INPUT–5
(GV–D800/D800E)
L501
Q1309
SWITCHING
L1317
L1318
Q1303
SWITCHING
L1305
L1310
Q1308
SWITCHING
Q1304
SWITCHING
L302
Q1307
SWITCHING
Q1314
EMERGENCY
DETECT
T1301
D1302 (1/2)
RECT
Q1301
SWITCHING
D1306
RECT
D1302
RECT
D1301,305
RECT
Q1302
SWITCHING
L1301
Q1305
SWITCHING
L1303
CAP VS
CAP ERROR
Q1306
SWITCHING
L1304
DRUM VS
DRUM ERROR
CN1301
EX UNREG
BATT UNREG
MT 5V
VTR UNREG
BL CONT
BL REG
1.5V
2.8V
PANEL 13V
RP UNREG
PANEL –15V
4.75V
CAP VS
CAP ERROR
DRUM VS
DRUM ERROR
VTR DD ON
SHOE ON
BATT SIG
BATT/XEXT SW
FAST CHARGE
INIT CHARGE ON
DC PACK SW
16
VC–250 BOARD(1/2)
CN921
DC PACK SW
SHOE ON
BATT SIG
INIT CHARGE ON
VTR DD ON
FAST CHARGE
BATT/XEXT SW
BATT UNREG
MT 5V
VTR UNREG
EX UNREG
BL CONT
BL REG
L1309
PANEL 2.8V
L1320
PANEL 13.3V
PANEL –15.3V
L1315
PANEL 4.75V
Q1322,1324,1326
–15.3V
REG
(GV–D800/D800E)
L1313
AV 4.75V
(4–39)
IC1302
1.9V REG
D 1.9V
L1307
A 2.8V
L1308
AU 2.8V
D 1.5V
L1314
A 4.75V
L1321
L1306
D 2.8V
CAP VS
CAP ERROR
DRUM VS
DRUM ERROR
L1316
RP 4.75V
L1311
IC1303
5.9V
REG
RP 6.0V
(4–39)
TO
POWER
BLOCK(2/2)
(SEE PAGE
3-11)

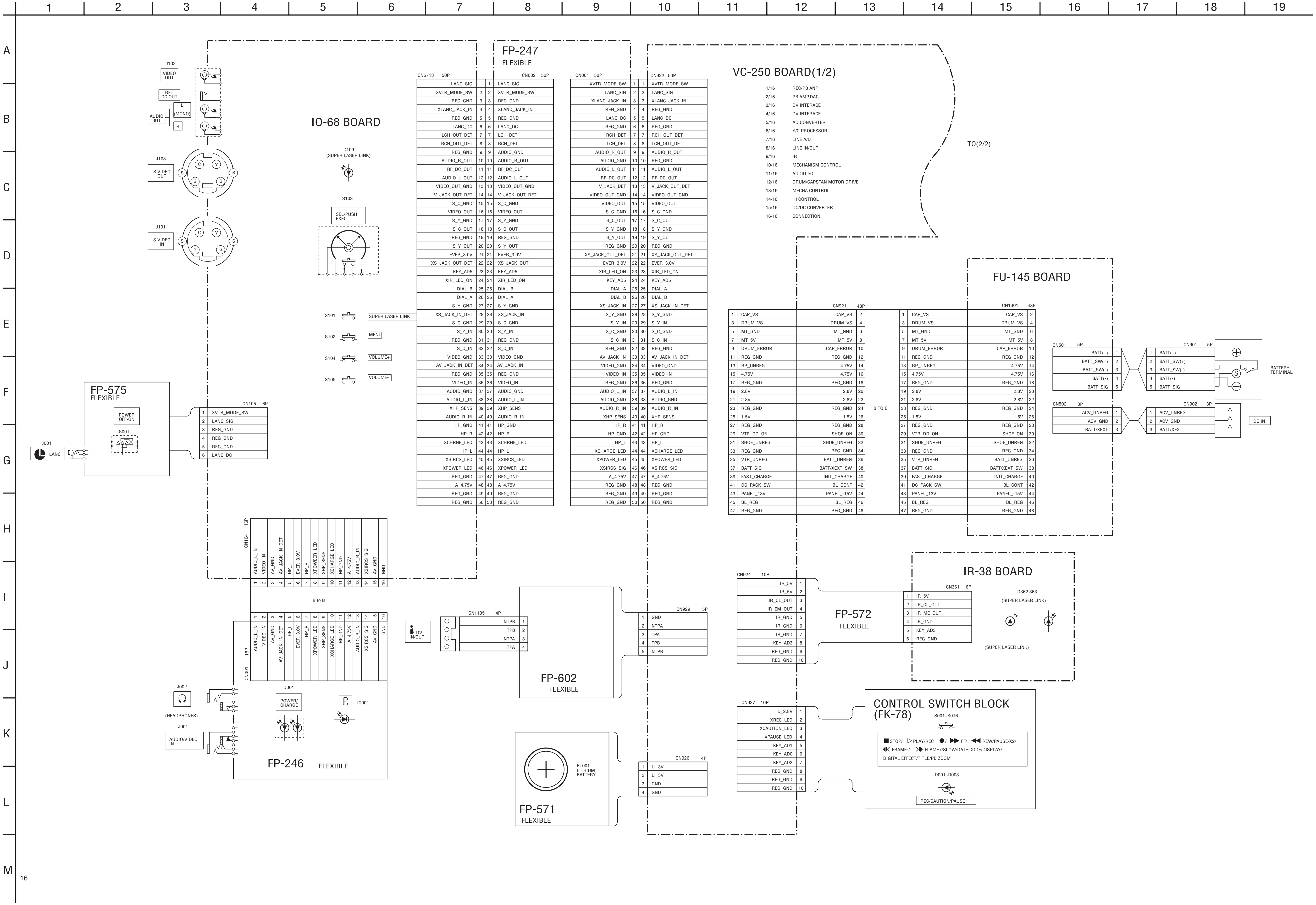
3-6. POWER BLOCK DIAGRAM (2/2)

( ) : Page No. shown in ( ) indicates the page to refer on the schematic diagram.

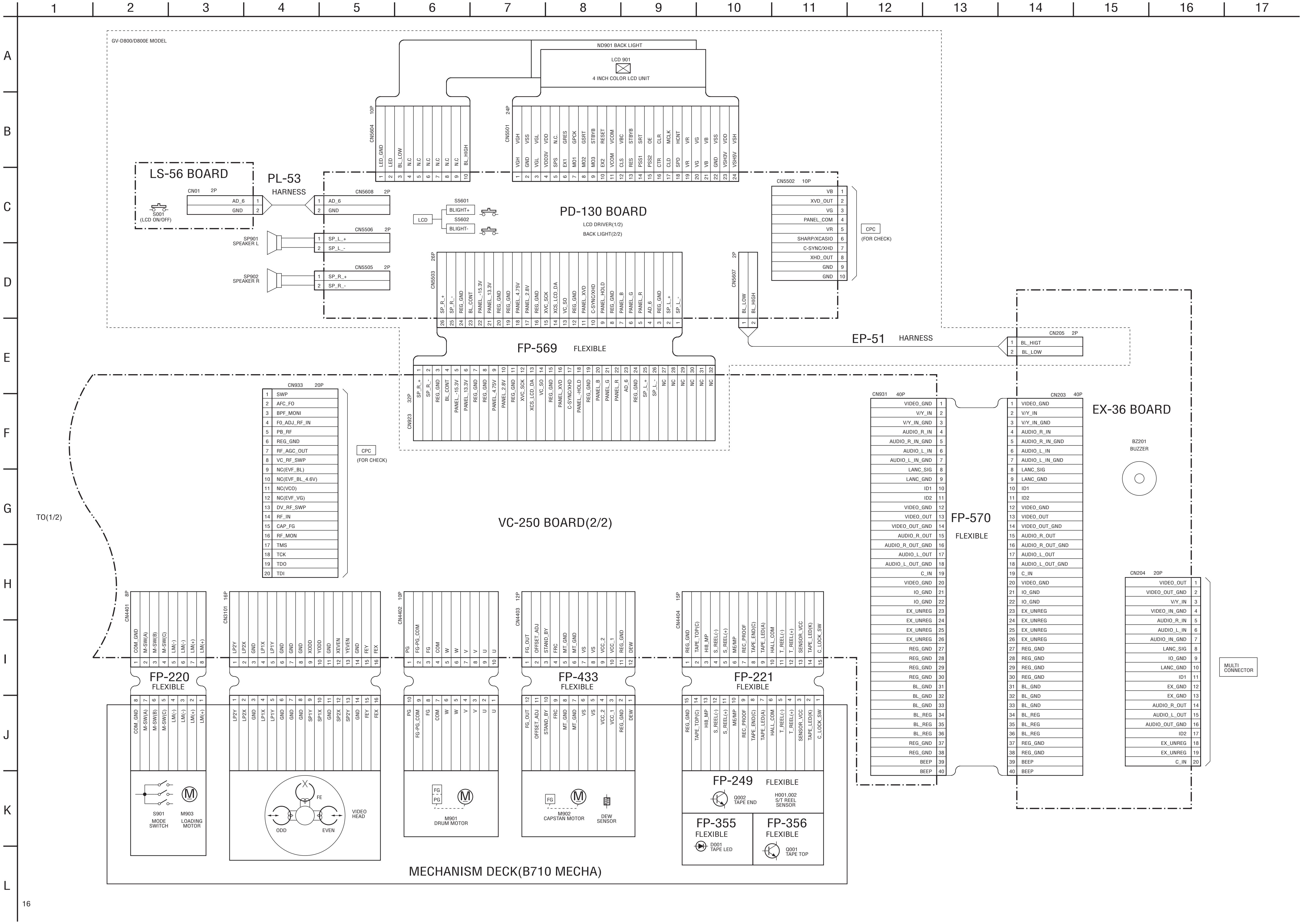

VC-250 BOARD(2/2)
TO POWER BLOCK (1/2) (SEE PAGE 3-10)
DC PACK SW
SHOE ON
BATT SIG
INIT CHARGE ON
VTR DD ON
FAST CHARGE
BATT XEXT SW
BATT UNREG
MT 5V
VTR UNREG
EX UNREG
BL CONT
BL REG
PANEL 2.8V
PANEL 13.3V
PANEL -15.3V
PANEL 4.75V
AU 4.75V
D 1.9V
A 2.8V
AU 2.8V
D 1.5V
A 4.75V
D 2.8V
CAP VS
CAP ERROR
DRUM VS
DRUM ERROR
RP 4.75V
RP 6.0V
BATT LI3V
IC4803 (4-37) HI CONTROL
BATT SENS
ACV SENS
XRESET
VDD
BATT IN
XLANC ON
SHOE ON
IB SO
IB SI
INIT CHARGE ON
VTR DD ON
FAST CHARGE
CHARGE INH
BATT/XEXT
XVTR MODE SE
XPOWER LED
XCHARGE LED
Q4804 I/F
BATT SIG
DC PACK SW
Q4809,4810 LED DRIVE
Q4808 LED DRIVE
S4801 RESET
IC901 (4-37) REG
D901
D4802
D4801
IC4801 (4-37) RESET BATTER IN DETECT REG
IC4802 (4-37) LANC I/O UNREG POWER LANC DC VCC
LANC DC
Q4806
VTR UNREG
MT 5V
AU 4.75V
IC5701 (4-31) AUDIO I/O
IC5702 (4-31) AUDIO ADC&DAC
IC5703 (4-31) AUDIO INPUT SELECT
IC5704 (4-31) SPEAKER AMP (GV-D800/D800E)
L5701
FB3303
IC4502 (4-36) EEPROM
IC4501 (4-35) DIGITAL8 MECHA CONTROL
FB4501
Q904,905 CURRENT LIMITER
A 2.8V
AU 2.8V
D 2.8V
FB3601
L3602
FB3701
FB3370
REG 1.5V
EVER 3.0V
FB2291
IC3603 (ALIGN) A/D CONV. (4-23)
IC3701 (TAXO) VIDEO LINE IN/OUT AMP (4-26)
L3701, 3705
IC3301 (CAIN) DV SIGNAL PROCESS (4-15)
IC3303 (LIP) DV INTERFACE (4-17)
IC3302 CHARACTER GENERATER (4-15)
IC2291 (EVR) D/A CONV. (4-13)
L2291
A 4.75V
A 2.8V
MT 5V
D 1.5V
D 2.8V
L3707
L3706
L3901
IC3703 (4-25) VIDEO OUT AMP
IC3702 VIDEO INPUT SELECT (4-25)
IC3901 (4-27) IR TRANSMITTER
Q3903
IR DRV
L2204
L2209
FB2202
FB2204
FB2203, FB2205
L2201-2203, L2208
IC2201 HI8/STD8 PB Y/C PROCESS (4-21)
FB1504
L1501
IC1502 AGC, A/D CONV. (4-19)
RP 4.75V
A 2.8V
D 2.8V
FB1501
L3201
L3102
L3104
RF 1.9V
L3103
IC1504 XTAL OSC (4-19)
IC1505 FREQUENCY DIVIDER (4-19)
IC3201 HI8/STD8 PB RF AMP (4-13)
IC3202 RF ENV DET (4-14)
IC3103 (TRW) REC/PB AMP (4-12)
IC3101 (TRF) EQ. A/D CONV. PLL (4-11)
16
CN926
BT001 VANADIUM LITHIUM BATTERY
FP-571 (FLEXIBLE) (SEE PAGE 4-37)
(SEE PAGE 4-45)
IO-68 BOARD
XVTR MODE SW
LANC SW
CN105
LED
EVER 3.0V
XPOWER LED
XCHARGE LED
A 4.75V
CN104
RFU DC OUT
CN103
J102 RFU DC OUT
FP-575 (FLEXIBLE) (SEE PAGE 4-45)
S001 POWER ON OFF
J001 (LANC)
CN001
D001 (POWER) (CHARGE)
IC001 (4-45) REMOTE COMMANDER RECEIVER
FP-246 (FLEXIBLE) (SEE PAGE 4-45)
(GV-D800/D800E)
PD-130 BOARD
PANEL 4.75V
PANEL -15.3V
PANEL 13.3V
PANEL 2.8V
BL CONT
CN923
CN5503
L5504
L5503
L5501
L5502
Q5502-5506
CN5501
LCD UNIT
IC5501 RGB DRIVE (4-55)
IC5502 TIMING GENERATOR (4-55)
IC5503 (4-56)
IC5601,5602 INVERTER (BACKLIGHT DRIVE) (4-57)
BL HIGH
CN5604
ND901 BACKLIGHT
BL REG
CN5607
(SEE PAGE 4-61)
FK-78 BOARD
CN001
LED
D 2.8V
CN927
EX-36 BOARD
CN205
BL REG
EX UNREG
CN931
CN203
CN204 MULTI CONNECTOR
(SEE PAGE 4-65)
CAP VS
IC4901 (4-29) EEPROM
IC4902 (4-29) HI8/STD8 MECHA CONTROL
IC4401 (4-33) (RABI) DRUM MOTOR DRIVE DRUM FG,PG AMP LOADING MOTOR DRIVE REEL FG AMP TAPE TOP,END DET DRUM,CAP ERROR AMP
DRUM ERROR
CAP ERROR
DRUM VS
FB4901
CN4403
SENSOR VCC
R4407
TAPE LED(A)
R4411
CN4404
D 2.8V
VTR UNREG
MT 5V
CAPSTAN MOTOR
T REEL, S REEL SENSOR
TAPE LED
B710 MECHA DECK (SEE PAGE 4-33)
IR-38 BOARD (SEE PAGE 4-27)
Q901-903
IR 5V
IR DRV
CN924
CN361
F361
D362,363 IR LED (SUPER LASER LINK)

SECTION 4
PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

4-1. FRAME SCHEMATIC DIAGRAM (1/2)


IO-68 BOARD
FP-247
FLEXIBLE
VC-250 BOARD(1/2)
1/16 REC/PB ANP
2/16 PB AMP,DAC
3/16 DV INTERACE
4/16 DV INTERACE
5/16 AD CONVERTER
6/16 Y/C PROCESSOR
7/16 LINE A/D
8/16 LINE IN/OUT
9/16 IR
10/16 MECHANISM CONTROL
11/16 AUDIO I/O
12/16 DRUM/CAPSTAN MOTOR DRIVE
13/16 MECHA CONTROL
14/16 HI CONTROL
15/16 DC/DC CONVERTER
16/16 CONNECTION
TO(2/2)
FU-145 BOARD
IR-38 BOARD
FP-572
FLEXIBLE
CONTROL SWITCH BLOCK
(FK-78)
FP-575
FLEXIBLE
FP-602
FLEXIBLE
FP-571
FLEXIBLE
FP-246
FLEXIBLE
CN5713 50P
CN002 50P
CN001 50P
CN922 50P
CN921 48P
CN1301 48P
CN501 5P
CN901 5P
CN502 3P
CN902 3P
CN105 6P
CN104 16P
CN001 16P
CN1105 4P
CN929 5P
CN924 10P
CN361 6P
CN927 10P
CN926 4P
J102
VIDEO OUT
RFU DC OUT
AUDIO OUT
L
(MONO)
R
J103
S VIDEO OUT
J101
S VIDEO IN
D109
(SUPER LASER LINK)
S103
SEL/PUSH EXEC
S101 SUPER LASER LINK
S102 MENU
S104 VOLUME+
S105 VOLUME-
J001
LANC
POWER OFF-ON
S001
B to B
B TO B
DV IN/OUT
J002
(HEADPHONES)
J001
AUDIO/VIDEO IN
D001
POWER/ CHARGE
IC001
BT001
LITHIUM BATTERY
BATTERY TERMINAL
DC IN
D362,363
(SUPER LASER LINK)
S001–S016
STOP/ PLAY/REC / FF/ REW/PAUSE/X2/
FRAME-/ FLAME+/SLOW/DATE CODE/DISPLAY/
DIGITAL EFFECT/TITLE/PB ZOOM
D001–D003
REC/CAUTION/PAUSE
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
A B C D E F G H I J K L M

FRAME SCHEMATIC DIAGRAM (2/2)

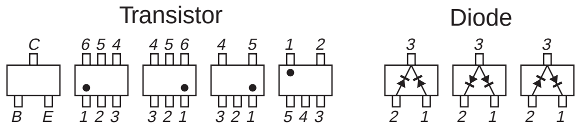

GV-D800/D800E MODEL
ND901 BACK LIGHT
LCD 901
4 INCH COLOR LCD UNIT
CN5604 10P
LED_GND
LED
BL_LOW
N.C
BL_HIGH
CN5501 24P
LS-56 BOARD
CN01 2P
AD_6
GND
S001 (LCD ON/OFF)
PL-53
HARNESS
CN5608 2P
AD_6
GND
S5601
BLIGHT+
S5602
BLIGHT-
LCD
PD-130 BOARD
LCD DRIVER(1/2)
BACK LIGHT(2/2)
CN5506 2P
SP_L_+
SP_L_-
SP901 SPEAKER L
CN5505 2P
SP_R_+
SP_R_-
SP902 SPEAKER R
CN5503 26P
CN5607 2P
BL_LOW
BL_HIGH
CN5502 10P
VB
XVD_OUT
VG
PANEL_COM
VR
SHARP/XCASIO
C-SYNC/XHD
XHD_OUT
GND
GND
CPC (FOR CHECK)
FP-569 FLEXIBLE
EP-51 HARNESS
CN205 2P
BL_HIGT
BL_LOW
CN923 32P
CN933 20P
SWP
AFC_FO
BPF_MONI
F0_ADJ_RF_IN
PB_RF
REG_GND
RF_AGC_OUT
VC_RF_SWP
NC(EVF_BL)
NC(EVF_BL_4.6V)
NC(VCO)
NC(EVF_VG)
DV_RF_SWP
RF_IN
CAP_FG
RF_MON
TMS
TCK
TDO
TDI
CPC (FOR CHECK)
TO(1/2)
VC-250 BOARD(2/2)
CN931 40P
FP-570 FLEXIBLE
CN203 40P
EX-36 BOARD
BZ201 BUZZER
CN204 20P
VIDEO_OUT
VIDEO_OUT_GND
V/Y_IN
VIDEO_IN_GND
AUDIO_R_IN
AUDIO_L_IN
AUDIO_IN_GND
LANC_SIG
IO_GND
LANC_GND
ID1
EX_GND
EX_GND
AUDIO_R_OUT
AUDIO_L_OUT
AUDIO_OUT_GND
ID2
EX_UNREG
EX_UNREG
C_IN
MULTI CONNECTOR
CN4401 8P
CN3101 16P
CN4402 10P
CN4403 12P
CN4404 15P
FP-220 FLEXIBLE
FP-433 FLEXIBLE
FP-221 FLEXIBLE
FP-249 FLEXIBLE
Q002 TAPE END
H001,002 S/T REEL SENSOR
FP-355 FLEXIBLE
D001 TAPE LED
FP-356 FLEXIBLE
Q001 TAPE TOP
S901 MODE SWITCH
M903 LOADING MOTOR
FE
VIDEO HEAD
ODD
EVEN
FG
PG
M901 DRUM MOTOR
M902 CAPSTAN MOTOR
DEW SENSOR
MECHANISM DECK(B710 MECHA)
16

4-2. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

THIS NOTE IS COMMON FOR WIRING BOARDS AND SCHEMATIC DIAGRAMS
(In addition to this, the necessary note is printed in each block)

(For printed wiring boards)

- ░░░░: Pattern from the side which enables seeing.
  (The other layers' patterns are not indicated.)
- Through hole is omitted.
- Circled numbers refer to waveforms.
- There are few cases that the part printed on diagram isn't mounted in this model.
- Chip parts.



(For schematic diagrams)

- All capacitors are in μF unless otherwise noted. pF : μ μF. 50V or less are not indicated except for electrolytics and tantalums.
- Chip resistors are 1/10W unless otherwise noted.
  kΩ=1000Ω, MΩ=1000kΩ.
- Caution when replacing chip parts.
  New parts must be attached after removal of chip.
  Be careful not to heat the minus side of tantalum capacitor, Because it is damaged by the heat.
- Some chip part will be indicated as follows.

Example C541 L452
22U 10UH
TA A 2520

Kinds of capacitor
Temperature characteristics
External dimensions (mm)

- Constants of resistors, capacitors, ICs and etc with XX indicate that they are not used.
  In such cases, the unused circuits may be indicated.
- Parts with ★ differ according to the model/destination.
  Refer to the mount table for each function.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- Signal name
  XEDIT → $\overline{\text{EDIT}}$ PB/XREC → PB/$\overline{\text{REC}}$
- : non flammable resistor
- : fusible resistor
- ▭: panel designation
- ▬▬: B+ Line *
- ▬ ▬ ▬: B– Line *
- ⇨ : IN/OUT direction of (+,–) B LINE. *
- ▭: adjustment for repair. *
- Circled numbers refer to waveforms. *

* Indicated by the color red.

Note : The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	**Note :** Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

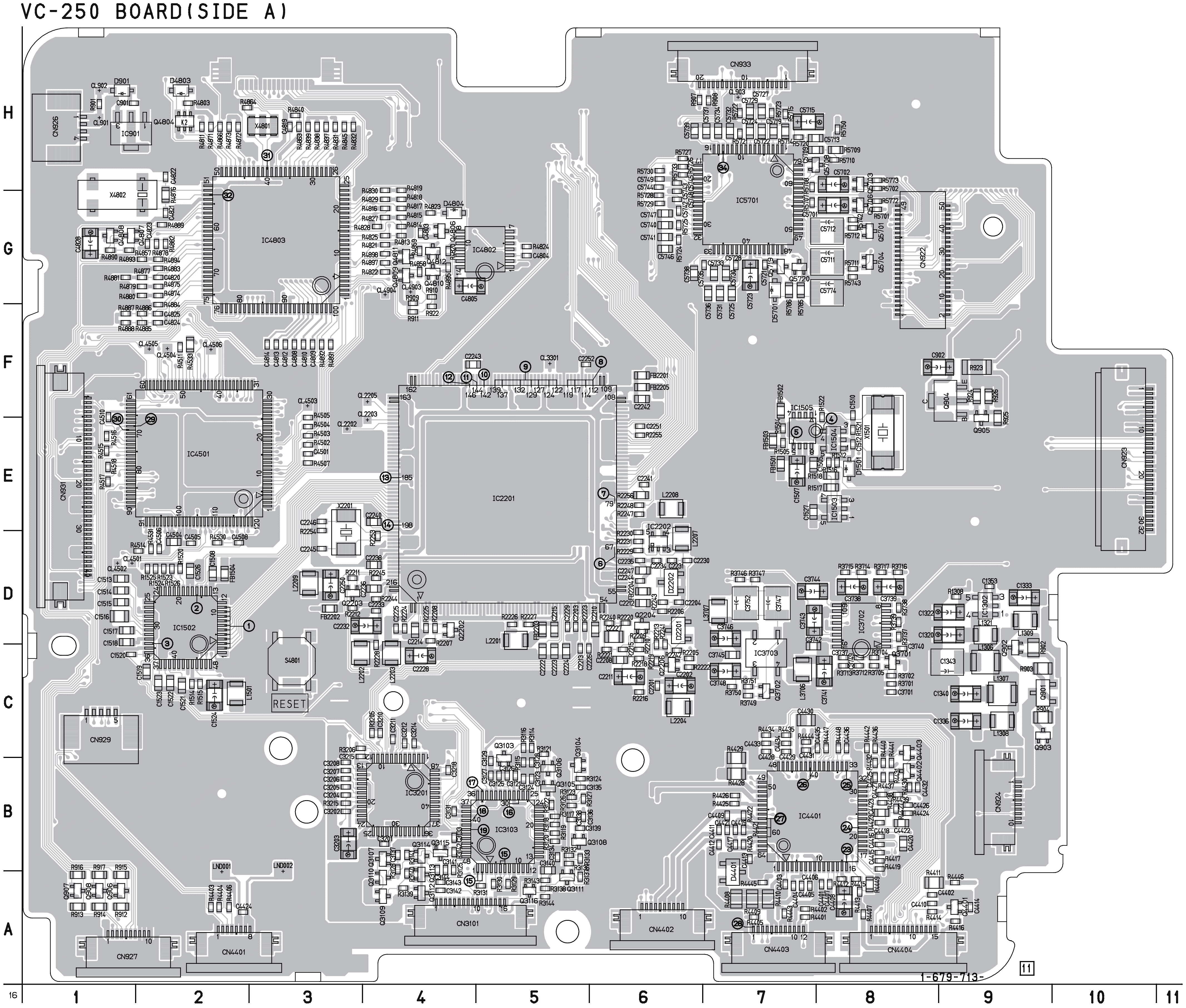
(Measuring conditions voltage and waveform)

- Voltages and waveforms are measured between the measurement points and ground when composite video signal is REC or PB. They are reference values and reference waveforms. *
  (VOM of DC 10 MΩ input impedance is used.).
- Voltage values change depending upon input impedance of VOM used.)

When indicating parts by reference number, pleas include the board name.

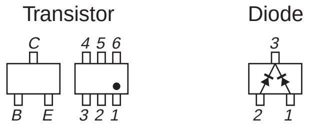
VC-250 (REC/PB AMP, DAC, DV INTERFACE, AD CONVERTER, Y/C PROCESSOR, LINE A/D, LINE I/O, IR, AUDIO I/O, DRUM/CAPSTAN MOTOR DRIVE, MECHA CONTROL, HI CONTROL, DC/DC CONVERTER, CONNECTION) PRINTED WIRING BOARD

— Ref. No. VC-250 Board; 30,000 Series —

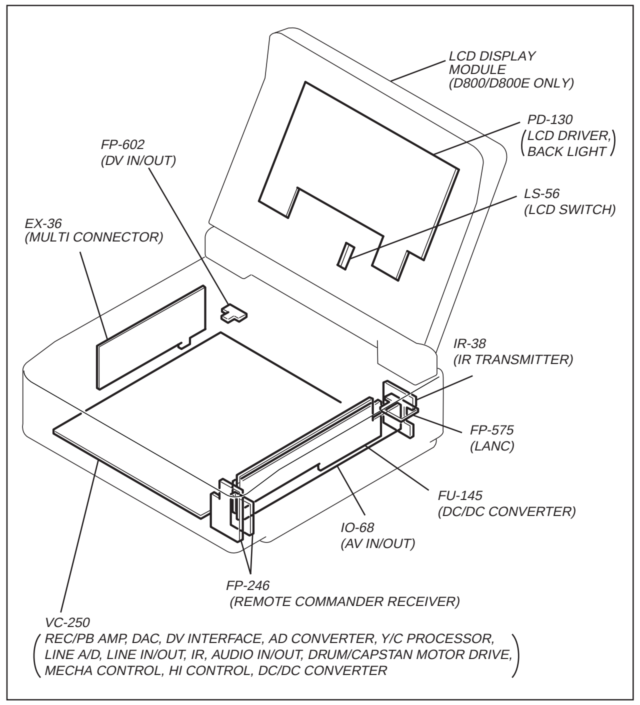

VC-250 BOARD(SIDE A)
H
G
F
E
D
C
B
A
16
1
2
3
4
5
6
7
8
9
10
11
CN926
IC901
D901
D4803
X4801
X4802
IC4803
IC4802
CN933
IC5701
CN922
IC4501
IC2201
CN931
CN923
IC1505
IC1504
IC1503
X1501
Q904
Q905
IC2202
X2201
IC1502
S4801
RESET
IC3703
IC3702
IC1302
CN929
IC3201
IC3103
IC4401
CN924
CN927
CN4401
CN3101
CN4402
CN4403
CN4404
1-679-713-
11

For printed wiring board

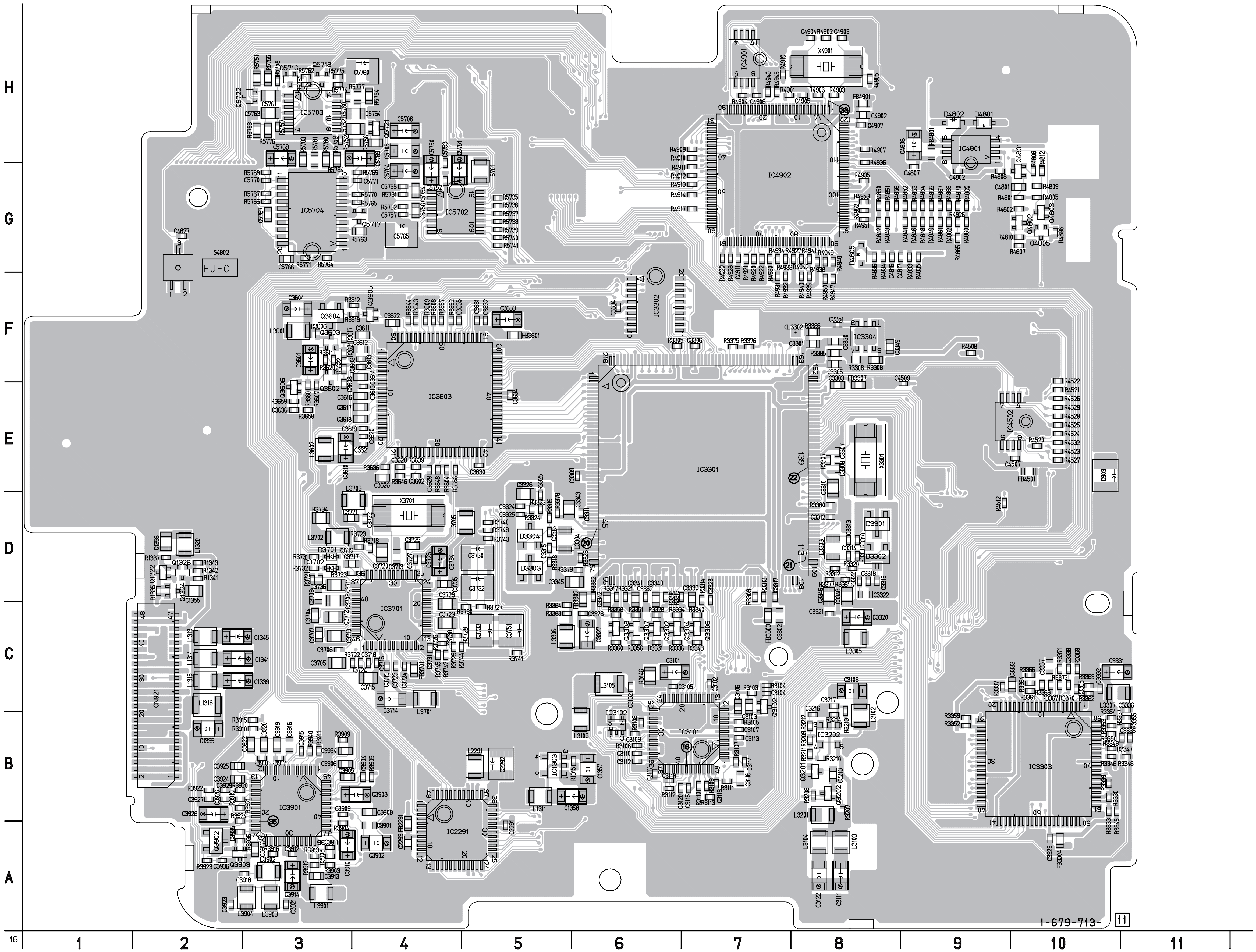
- Refer to pages 4-70, 71 for parts location.
- VC-250 board consists of multiple layers. However, only the sides (layers) A and B are shown.
- Chip parts


Transistor
C
B
E
4 5 6
3 2 1
Diode
3
2
1

There are few cases that the part printed on this diagram isn't mounted in this model.

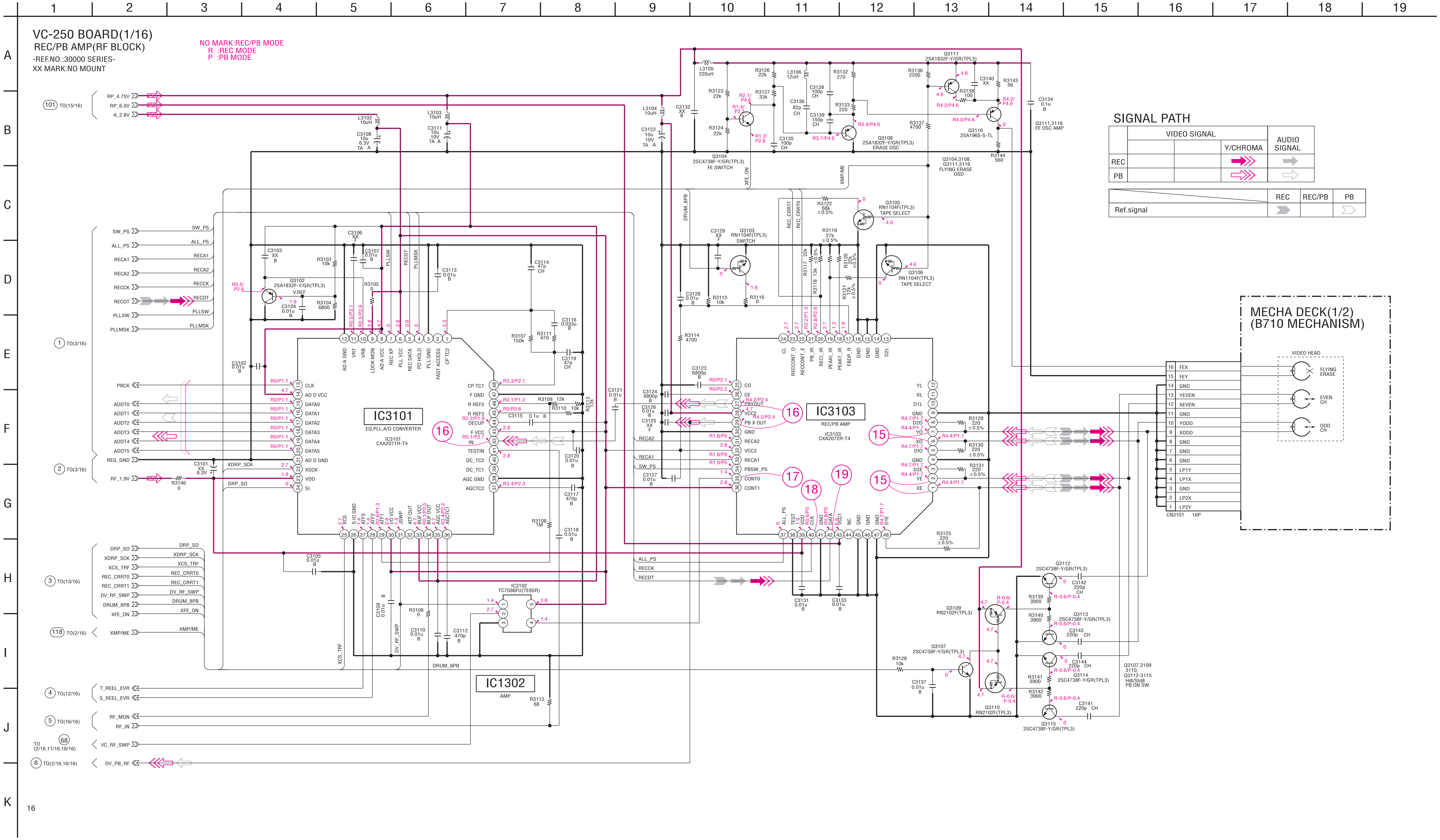

LCD DISPLAY MODULE (D800/D800E ONLY)
PD-130 (LCD DRIVER, BACK LIGHT)
FP-602 (DV IN/OUT)
LS-56 (LCD SWITCH)
EX-36 (MULTI CONNECTOR)
IR-38 (IR TRANSMITTER)
FP-575 (LANC)
FU-145 (DC/DC CONVERTER)
IO-68 (AV IN/OUT)
FP-246 (REMOTE COMMANDER RECEIVER)
VC-250 (REC/PB AMP, DAC, DV INTERFACE, AD CONVERTER, Y/C PROCESSOR, LINE A/D, LINE IN/OUT, IR, AUDIO IN/OUT, DRUM/CAPSTAN MOTOR DRIVE, MECHA CONTROL, HI CONTROL, DC/DC CONVERTER)

VC-250 BOARD(SIDE B)


H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
16
IC5703
IC5704
IC5702
IC4901
X4901
IC4902
IC4801
IC3302
IC3304
IC3603
IC3301
IC4502
X3701
X3301
D3304
D3303
D3301
D3302
IC3701
CN921
IC3901
IC2291
IC1303
IC3102
IC3101
IC3202
IC3303
S4802
EJECT
1-679-713-
11

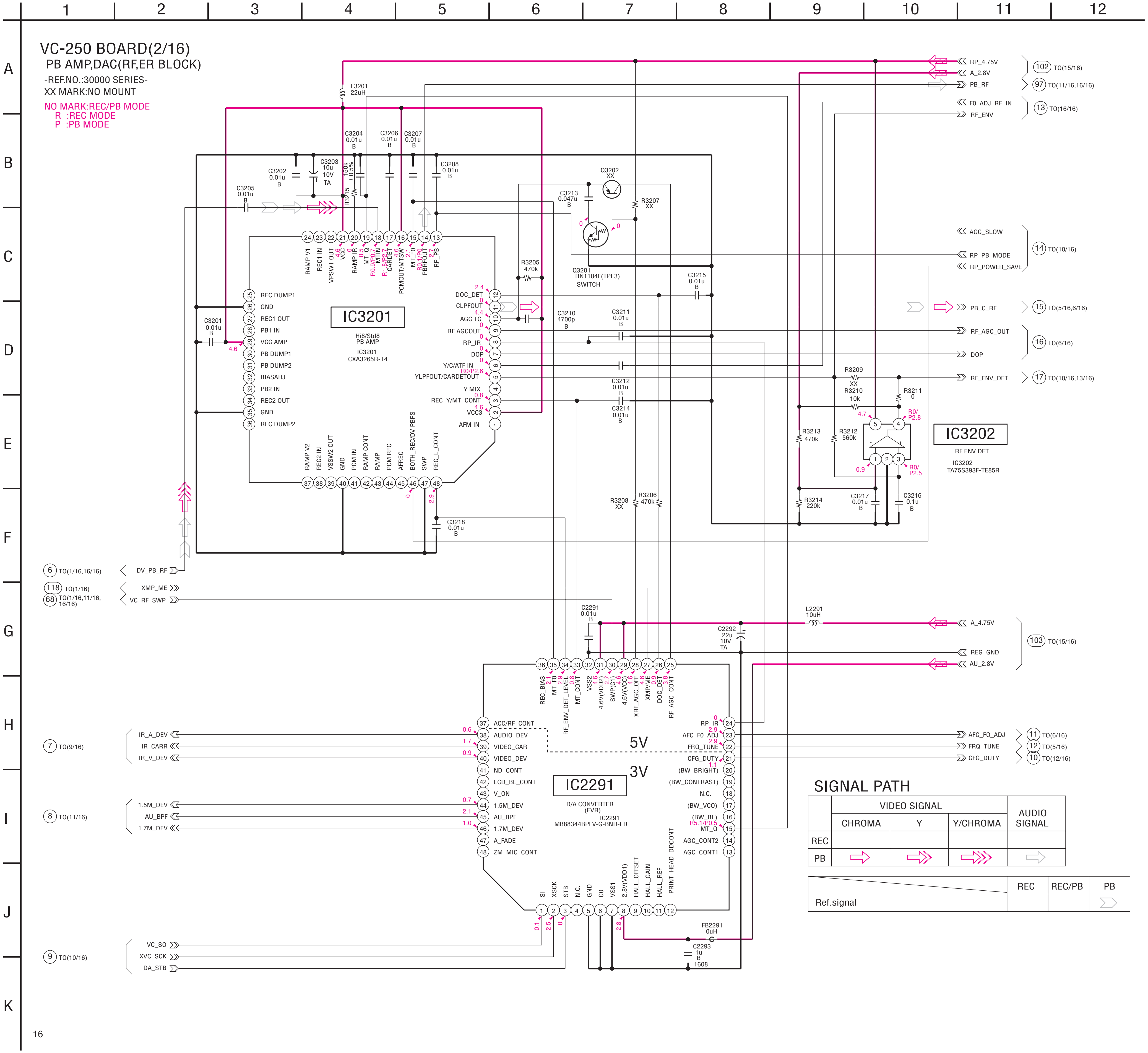
For Schematic Diagram

- Refer to page 4-7 for printed wiring board.
- Refer to page 4-68 for waveforms.


VC-250 BOARD(1/16)
REC/PB AMP(RF BLOCK)
-REF.NO.:30000 SERIES-
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
IC3101
EQ,PLL,A/D CONVERTER
IC3101 CXA2071R-T4
IC3103
REC/PB AMP
IC3103 CXA2072R-T4
IC1302
AMP
IC3102 TC7S86FU(TE85R)
Q3102 2SA1832F-Y/GR(TPL3) V.REF
Q3103 RN1104F(TPL3) SWITCH
Q3104 2SC4738F-Y/GR(TPL3) FE SWITCH
Q3105 RN1104F(TPL3) TAPE SELECT
Q3106 RN1104F(TPL3) TAPE SELECT
Q3108 2SA1832F-Y/GR(TPL3) ERASE OSC
Q3111 2SA1832F-Y/GR(TPL3)
Q3116 2SA1965-S-TL
Q3111,3116 FE OSC AMP
Q3104,3108, Q3111,3116 FLYING ERASE OSD
Q3107,3109 3110, Q3112-3115 Hi8/Std8 PB ON SW
SIGNAL PATH
VIDEO SIGNAL
Y/CHROMA
AUDIO SIGNAL
REC
PB
Ref.signal
REC
REC/PB
PB
MECHA DECK(1/2)
(B710 MECHANISM)
VIDEO HEAD
FLYING ERASE
EVEN CH
ODD CH
CN3101 16P
FEX
FEY
GND
YEVEN
XEVEN
GND
YODD
XODD
GND
GND
GND
LP1Y
LP1X
GND
LP2X
LP2Y
(101) TO(15/16)
RP_4.75V
RP_6.0V
A_2.8V
1 TO(3/16)
SW_PS
ALL_PS
RECA1
RECA2
RECCK
RECDT
PLLSW
PLLMSK
PBCK
ADDT0
ADDT1
ADDT2
ADDT3
ADDT4
ADDT5
REG_GND
2 TO(3/16)
RF_1.9V
3 TO(13/16)
DRP_SO
XDRP_SCK
XCS_TRF
REC_CRRT0
REC_CRRT1
DV_RF_SWP
DRUM_8PB
XFE_ON
(118) TO(2/16)
XMP/ME
4 TO(12/16)
T_REEL_EVR
S_REEL_EVR
5 TO(16/16)
RF_MON
RF_IN
TO (2/16,11/16,16/16) (68)
VC_RF_SWP
6 TO(2/16,16/16)
DV_PB_RF

For Schematic Diagram

• Refer to page 4-7 for printed wiring board.


1
2
3
4
5
6
7
8
9
10
11
12
A
B
C
D
E
F
G
H
I
J
K
VC-250 BOARD(2/16)
PB AMP,DAC(RF,ER BLOCK)
-REF.NO.:30000 SERIES-
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
IC3201
Hi8/Std8
PB AMP
IC3201
CXA3265R-T4
IC3202
RF ENV DET
IC3202
TA75S393F-TE85R
IC2291
D/A CONVERTER
(EVR)
IC2291
MB88344BPFV-G-BND-ER
5V
3V
Q3201
RN1104F(TPL3)
SWITCH
Q3202
XX
L3201
22uH
L2291
10uH
FB2291
0uH
RP_4.75V
A_2.8V
PB_RF
F0_ADJ_RF_IN
RF_ENV
AGC_SLOW
RP_PB_MODE
RP_POWER_SAVE
PB_C_RF
RF_AGC_OUT
DOP
RF_ENV_DET
A_4.75V
REG_GND
AU_2.8V
AFC_F0_ADJ
FRQ_TUNE
CFG_DUTY
(102) TO(15/16)
(97) TO(11/16,16/16)
(13) TO(16/16)
(14) TO(10/16)
(15) TO(5/16,6/16)
(16) TO(6/16)
(17) TO(10/16,13/16)
(103) TO(15/16)
(11) TO(6/16)
(12) TO(5/16)
(10) TO(12/16)
(6) TO(1/16,16/16)
DV_PB_RF
(118) TO(1/16)
XMP_ME
(68) TO(1/16,11/16,16/16)
VC_RF_SWP
(7) TO(9/16)
IR_A_DEV
IR_CARR
IR_V_DEV
(8) TO(11/16)
1.5M_DEV
AU_BPF
1.7M_DEV
(9) TO(10/16)
VC_SO
XVC_SCK
DA_STB
16

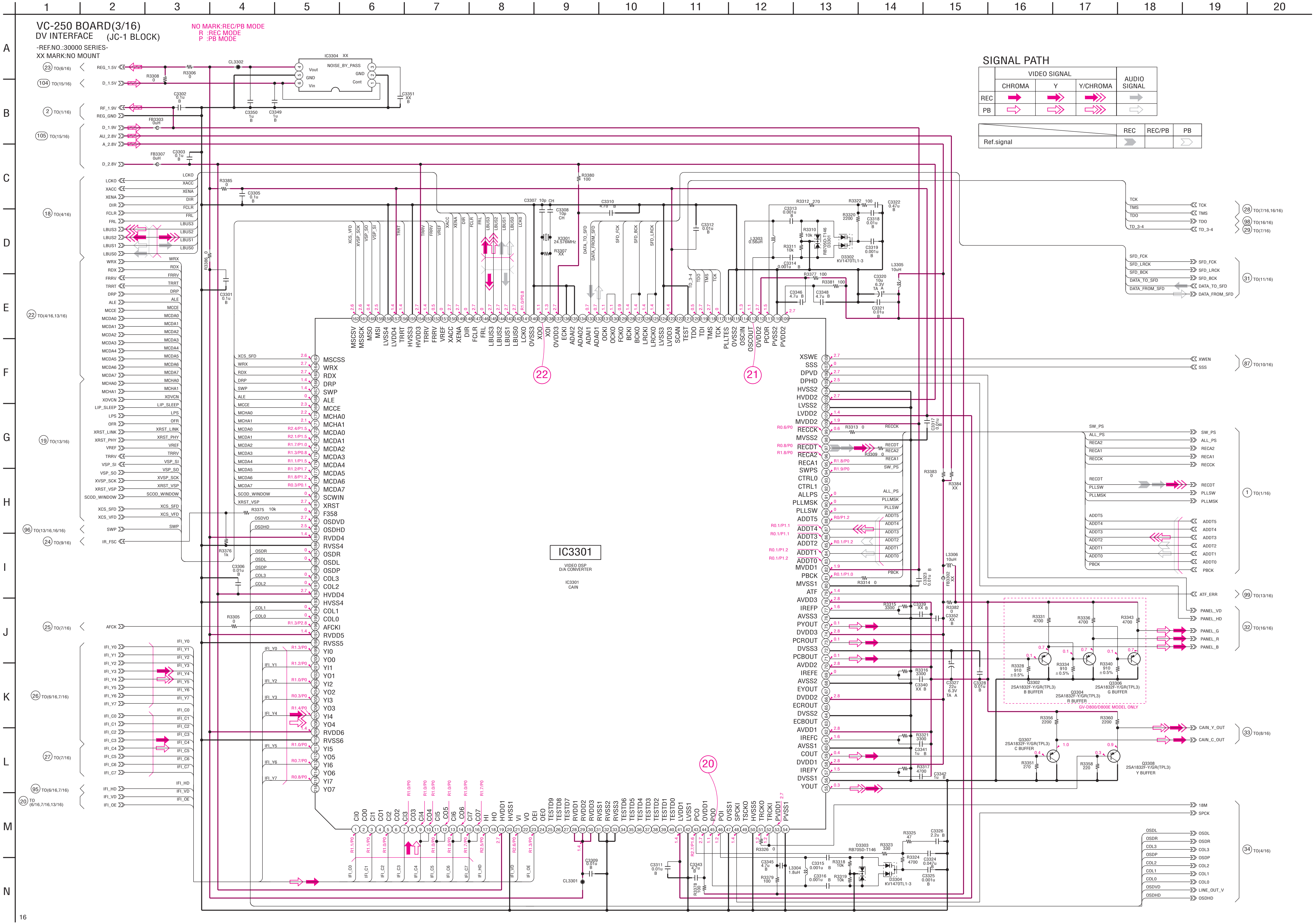
SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC				
PB	⇨	⇨⇨	⇨⇨⇨	⇨

	REC	REC/PB	PB
Ref.signal			⇨

For Schematic Diagram

- Refer to page 4-7 for printed wiring board.
- Refer to page 4-68 for waveforms.


VC-250 BOARD(3/16)
DV INTERFACE (JC-1 BLOCK)
-REF.NO.:30000 SERIES-
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
IC3304 XX
NOISE_BY_PASS
IC3301
VIDEO DSP
D/A CONVERTER
IC3301
CAIN
X3301
24.576MHz
Q3302
2SA1832F-Y/GR(TPL3)
B BUFFER
Q3304
2SA1832F-Y/GR(TPL3)
R BUFFER
Q3306
2SA1832F-Y/GR(TPL3)
G BUFFER
Q3307
2SA1832F-Y/GR(TPL3)
C BUFFER
Q3308
2SA1832F-Y/GR(TPL3)
Y BUFFER
GV-D800/D800E MODEL ONLY
D3302
KV1470TL1-3
D3303
RB705D-T146
D3304
KV1470TL1-3
TO(6/16)
TO(15/16)
TO(1/16)
TO(4/16)
TO(4/16,13/16)
TO(13/16)
TO(13/16,16/16)
TO(9/16)
TO(7/16)
TO(6/16,7/16)
TO(6/16,7/16,13/16)
TO(7/16,16/16)
TO(16/16)
TO(7/16)
TO(11/16)
TO(10/16)
TO(1/16)
TO(13/16)
TO(16/16)
TO(8/16)
TO(4/16)
20
21
22

SIGNAL PATH

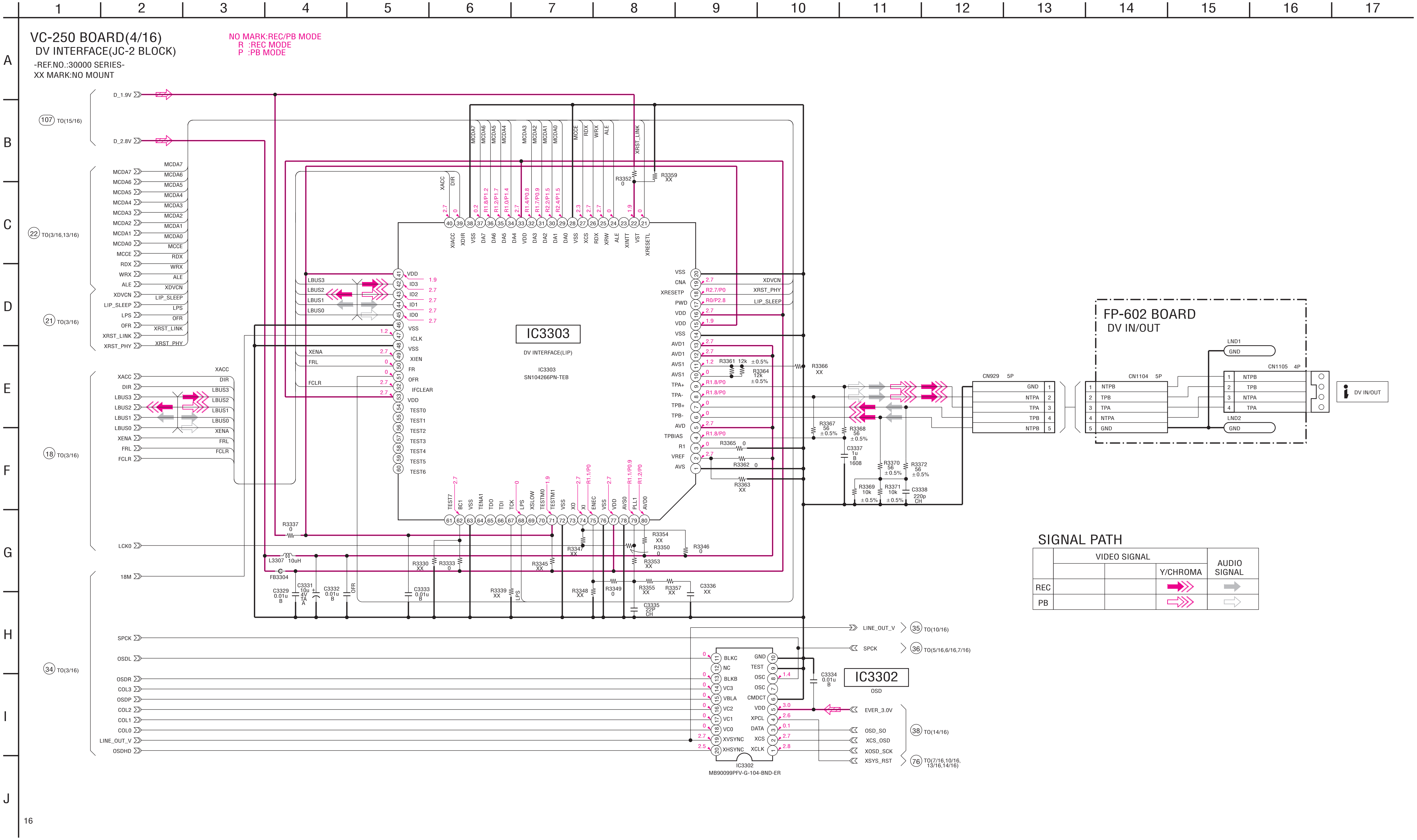
	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC	➡	➡	➡	➡
PB	⇨	⇨	⇨	⇨

	REC	REC/PB	PB
Ref.signal	➡		⇨

DV INTERFACE
VC-250 (3/16)

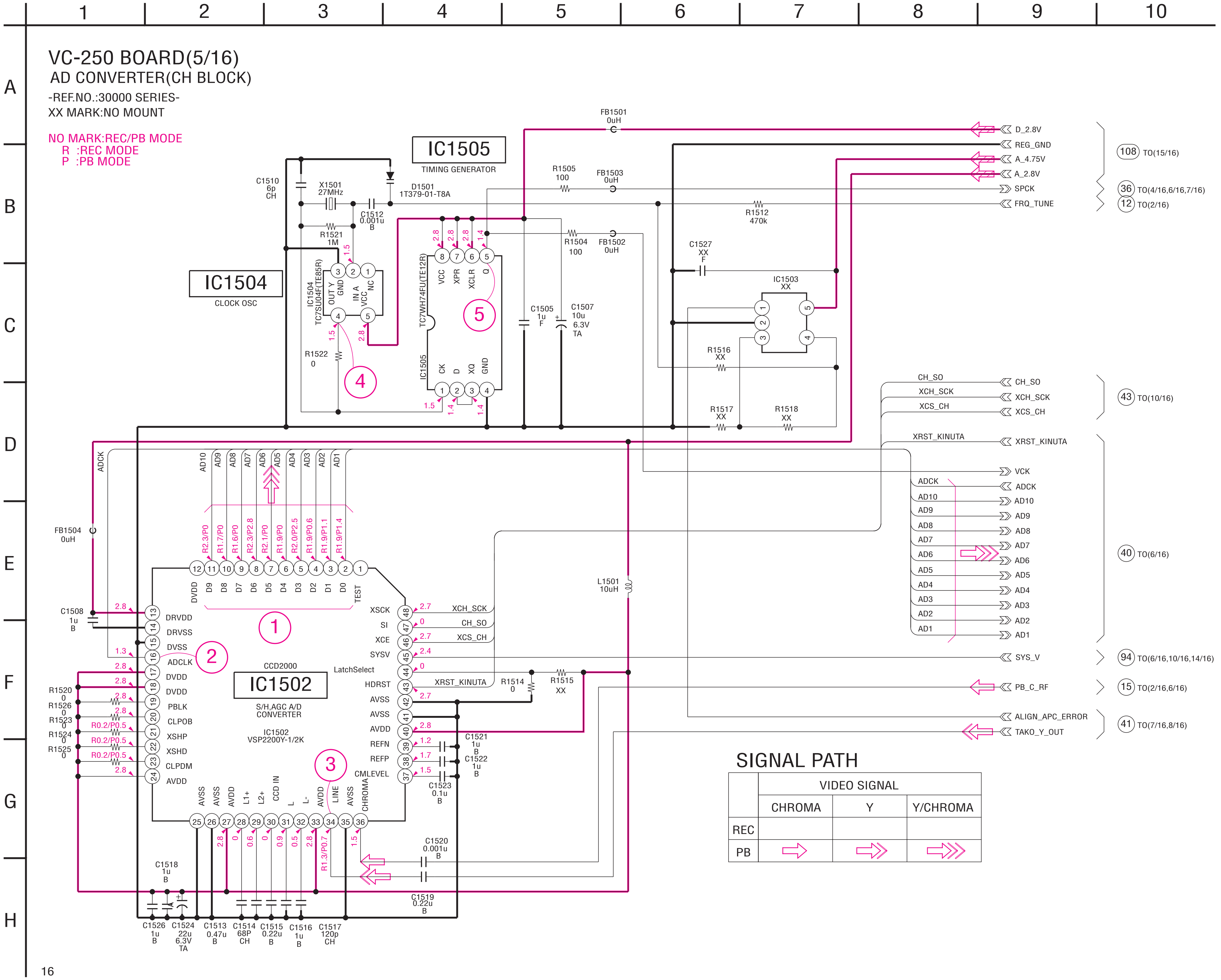
For Schematic Diagram

- Refer to page 4-7 for printed wiring board.


VC-250 BOARD(4/16)
DV INTERFACE(JC-2 BLOCK)
-REF.NO.:30000 SERIES-
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
A B C D E F G H I J
D_1.9V
D_2.8V
107 TO(15/16)
22 TO(3/16,13/16)
21 TO(3/16)
18 TO(3/16)
34 TO(3/16)
MCDA7
MCDA6
MCDA5
MCDA4
MCDA3
MCDA2
MCDA1
MCDA0
MCCE
RDX
WRX
ALE
XDVCN
LIP_SLEEP
LPS
OFR
XRST_LINK
XRST_PHY
XACC
DIR
LBUS3
LBUS2
LBUS1
LBUS0
XENA
FRL
FCLR
LCK0
18M
SPCK
OSDL
OSDR
COL3
OSDP
COL2
COL1
COL0
LINE_OUT_V
OSDHD
IC3303
DV INTERFACE(LIP)
IC3303
SN104266PN-TEB
R3352 0
R3359 XX
R3361 12k ±0.5%
R3364 12k ±0.5%
R3366 XX
R3365 0
R3362 0
R3363 XX
R3367 56 ±0.5%
R3368 56 ±0.5%
C3337 1u B 1608
R3370 56 ±0.5%
R3372 56 ±0.5%
R3369 10k ±0.5%
R3371 10k ±0.5%
C3338 220p CH
R3337 0
L3307 10uH
FB3304
C3329 0.01u B
C3331 10u 4V TA A
C3332 0.01u B
C3333 0.01u B
R3330 XX
R3333 0
R3339 XX
R3345 XX
R3347 XX
R3348 XX
R3349 0
R3354 XX
R3350 0
R3353 XX
R3346 0
R3355 XX
R3357 XX
C3336 XX
C3335 22P CH
CN929 5P
GND NTPA TPA TPB NTPB
FP-602 BOARD
DV IN/OUT
CN1104 5P
NTPB TPB TPA NTPA GND
CN1105 4P
NTPB TPB NTPA TPA
LND1 GND
LND2 GND
DV IN/OUT
IC3302
OSD
IC3302
MB90099PFV-G-104-BND-ER
C3334 0.01u B
LINE_OUT_V 35 TO(10/16)
SPCK 36 TO(5/16,6/16,7/16)
EVER_3.0V
OSD_SO
XCS_OSD
XOSD_SCK
XSYS_RST
38 TO(14/16)
76 TO(7/16,10/16, 13/16,14/16)
SIGNAL PATH
VIDEO SIGNAL
Y/CHROMA
AUDIO SIGNAL
REC
PB
16

DV INTERFACE
VC-250 (4/16)

For Schematic Diagram
- Refer to page 4-7 for printed wiring board.
- Refer to page 4-68 for waveforms.


1
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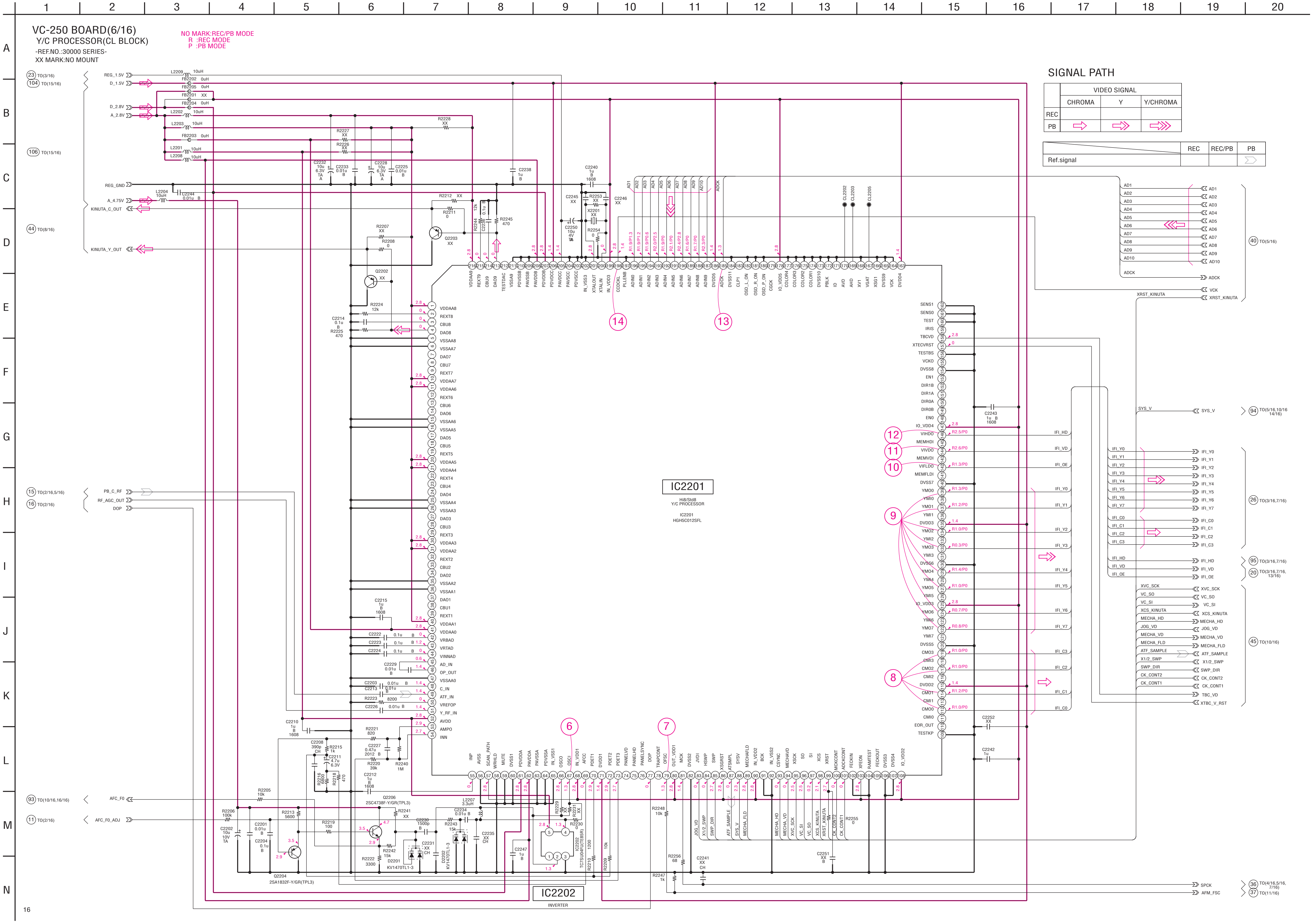
8
9
10
A
B
C
D
E
F
G
H
VC-250 BOARD(5/16)
AD CONVERTER(CH BLOCK)
-REF.NO.:30000 SERIES-
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
IC1505
TIMING GENERATOR
IC1504
CLOCK OSC
IC1503
IC1502
S/H,AGC A/D CONVERTER
IC1502 VSP2200Y-1/2K
CCD2000
TC7WH74FU(TE12R)
TC7SU04F(TE85R)
X1501 27MHz
D1501 1T379-01-T8A
C1510 6p CH
C1512 0.001u B
R1521 1M
R1522 0
R1505 100
FB1503 0uH
R1504 100
FB1502 0uH
FB1501 0uH
R1512 470k
C1527 XX F
C1505 1u F
C1507 10u 6.3V TA
R1516 XX
R1517 XX
R1518 XX
FB1504 0uH
C1508 1u B
R1520 0
R1526 0
R1523 0
R1524 0
R1525 0
R1514 0
R1515 XX
L1501 10uH
C1521 1u B
C1522 1u B
C1523 0.1u B
C1520 0.001u B
C1519 0.22u B
C1518 1u B
C1526 1u B
C1524 22u 6.3V TA
C1513 0.47u B
C1514 68P CH
C1515 0.22u B
C1516 1u B
C1517 120p CH
D_2.8V
REG_GND
A_4.75V
A_2.8V
SPCK
FRQ_TUNE
CH_SO
XCH_SCK
XCS_CH
XRST_KINUTA
VCK
ADCK
AD10
AD9
AD8
AD7
AD6
AD5
AD4
AD3
AD2
AD1
SYS_V
PB_C_RF
ALIGN_APC_ERROR
TAKO_Y_OUT
108 TO(15/16)
36 TO(4/16,6/16,7/16)
12 TO(2/16)
43 TO(10/16)
40 TO(6/16)
94 TO(6/16,10/16,14/16)
15 TO(2/16,6/16)
41 TO(7/16,8/16)
DRVDD
DRVSS
DVSS
ADCLK
DVDD
PBLK
CLPOB
XSHP
XSHD
CLPDM
AVDD
XSCK
SI
XCE
SYSV
LatchSelect
HDRST
AVSS
REFN
REFP
CMLEVEL
DVDD D9 D8 D7 D6 D5 D4 D3 D2 D1 D0 TEST
AVSS AVSS AVDD L1+ L2+ CCD IN L- L- AVDD LINE AVSS CHROMA
R2.3/P0
R1.7/P0
R1.6/P0
R2.3/P2.8
R2.1/P0
R1.9/P0
R2.0/P2.5
R1.9/P0.6
R1.9/P1.1
R1.9/P1.4
R0.2/P0.5
R1.3/P0.7
VCC XPR XCLR Q
CK D XQ GND
OUT Y GND IN A VCC NC
16

SIGNAL PATH

	VIDEO SIGNAL		
	CHROMA	Y	Y/CHROMA
REC			
PB	⇨	⇨	⇨

For Schematic Diagram
- Refer to page 4-7 for printed wiring board.
- Refer to page 4-68 for waveforms.

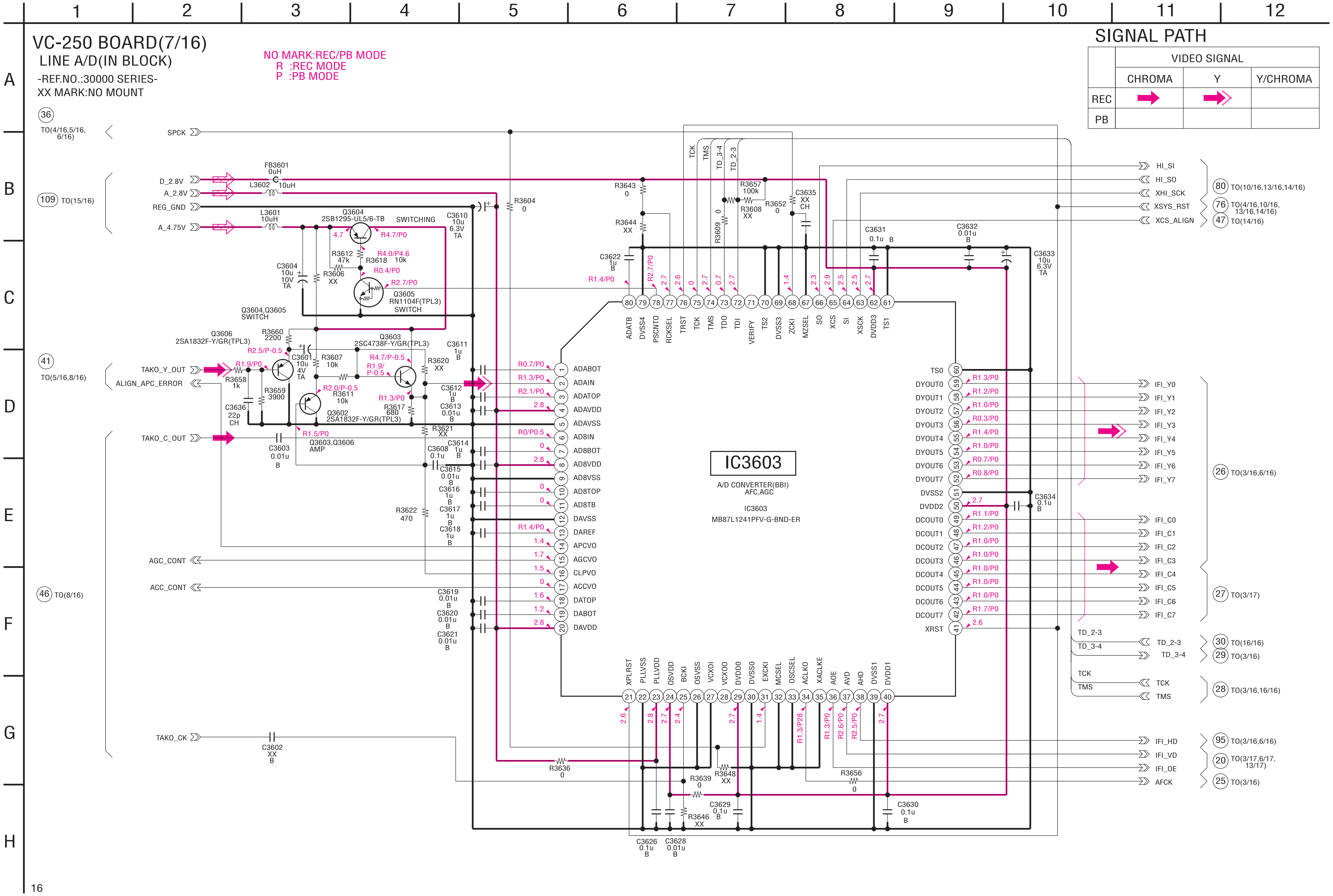

VC-250 BOARD(6/16)
Y/C PROCESSOR(CL BLOCK)
-REF.NO.:30000 SERIES-
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
IC2201
Hi8/Std8
Y/C PROCESSOR
IC2201
HGH5C012SFL
IC2202
INVERTER
Q2202
Q2203
Q2204
2SA1832F-Y/GR(TPL3)
Q2206
2SC4738F-Y/GR(TPL3)
D2201
KV1470TL1-3
D2202
KV1470TL1-3
IC2202
TC7SU04FU(TE85R)
X2201
REG_1.5V
D_1.5V
D_2.8V
A_2.8V
REG_GND
A_4.75V
KINUTA_C_OUT
KINUTA_Y_OUT
PB_C_RF
RF_AGC_OUT
DOP
AFC_F0
AFC_F0_ADJ
SYS_V
XRST_KINUTA
VCK
ADCK
IFI_Y0
IFI_Y1
IFI_Y2
IFI_Y3
IFI_Y4
IFI_Y5
IFI_Y6
IFI_Y7
IFI_C0
IFI_C1
IFI_C2
IFI_C3
IFI_HD
IFI_VD
IFI_OE
XVC_SCK
VC_SO
VC_SI
XCS_KINUTA
MECHA_HD
JOG_VD
MECHA_VD
MECHA_FLD
ATF_SAMPLE
X1/2_SWP
SWP_DIR
CK_CONT2
CK_CONT1
TBC_VD
XTBC_V_RST
SPCK
AFM_FSC
AD1
AD2
AD3
AD4
AD5
AD6
AD7
AD8
AD9
AD10
TO(3/16)
TO(15/16)
TO(15/16)
TO(8/16)
TO(2/16,5/16)
TO(2/16)
TO(10/16,16/16)
TO(2/16)
TO(5/16)
TO(5/16,10/16 14/16)
TO(3/16,7/16)
TO(3/16,7/16)
TO(3/16,7/16, 13/16)
TO(10/16)
TO(4/16,5/16, 7/16)
TO(11/16)
16

SIGNAL PATH

	VIDEO SIGNAL		
	CHROMA	Y	Y/CHROMA
REC			
PB	⇨	⇨	⇨

	REC	REC/PB	PB
Ref.signal			⇨

For Schematic Diagram
- Refer to page 4-7 for printed wiring board.

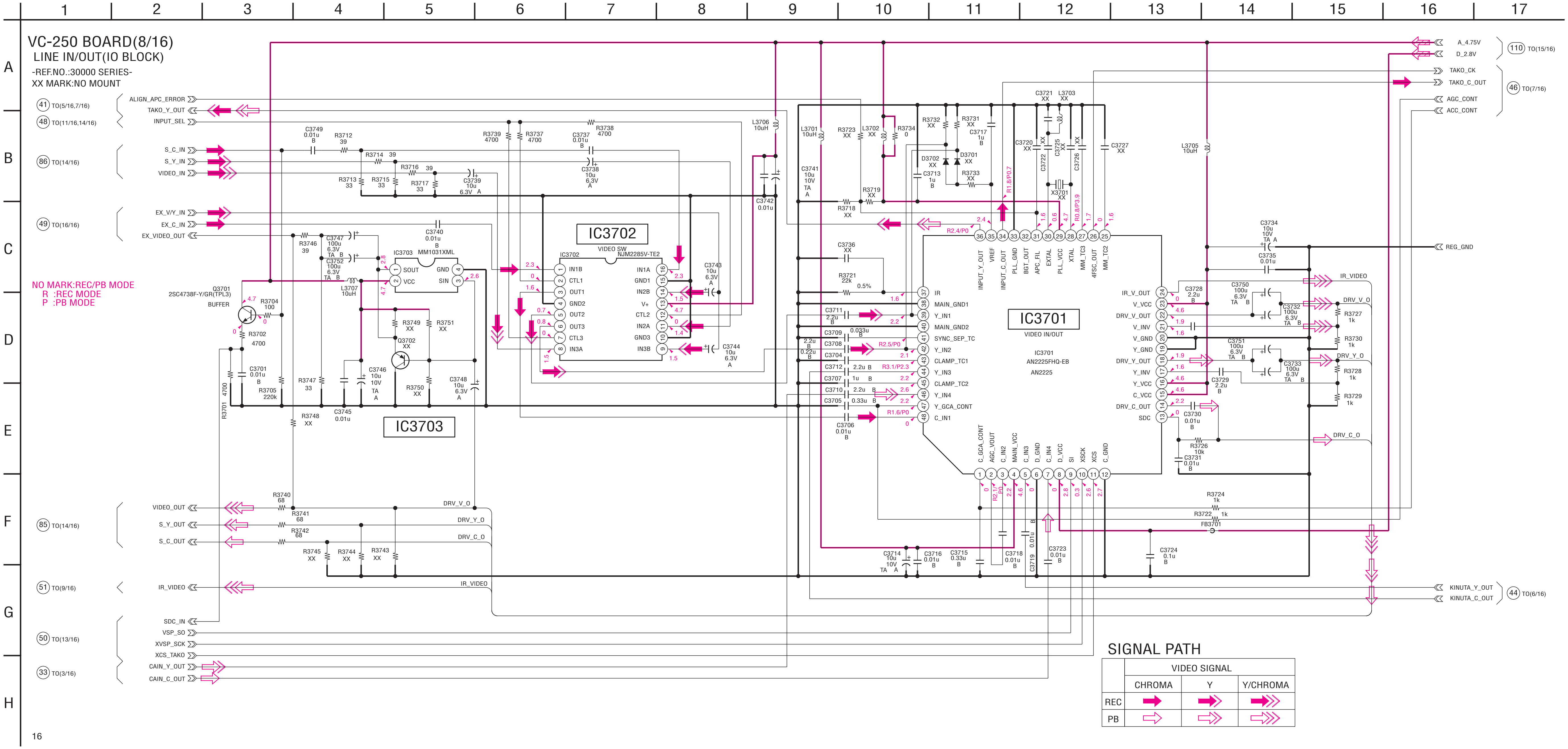

1
2
3
4
5
6
7
8
9
10
11
12
A
B
C
D
E
F
G
H
VC-250 BOARD(7/16)
LINE A/D(IN BLOCK)
-REF.NO.:30000 SERIES-
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
36
TO(4/16,5/16,6/16)
SPCK
109
TO(15/16)
D_2.8V
A_2.8V
REG_GND
A_4.75V
FB3601 0uH
L3602 10uH
L3601 10uH
Q3604 2SB1295-UL5/6-TB
SWITCHING
C3610 10u 6.3V TA
R3604 0
C3604 10u 10V TA
R3612 47k
R3618 10k
R3606 XX
Q3605 RN1104F(TPL3) SWITCH
Q3604,Q3605 SWITCH
41
TO(5/16,8/16)
TAKO_Y_OUT
ALIGN_APC_ERROR
TAKO_C_OUT
Q3606 2SA1832F-Y/GR(TPL3)
R3660 2200
C3601 10u 4V TA
R3607 10k
Q3603 2SC4738F-Y/GR(TPL3)
C3611 1u B
R3620 XX
R3658 1k
R3659 3900
C3636 22p CH
R3611 10k
R3617 680
Q3602 2SA1832F-Y/GR(TPL3)
R3621 XX
C3603 0.01u B
Q3603,Q3606 AMP
C3608 0.1u
C3614 1u B
C3612 1u B
C3613 0.01u B
C3615 0.01u B
C3616 1u B
C3617 1u B
C3618 1u B
R3622 470
46
TO(8/16)
AGC_CONT
ACC_CONT
C3619 0.01u B
C3620 0.01u B
C3621 0.01u B
TAKO_CK
C3602 XX B
R3643 0
R3644 XX
C3622 1u B
R3657 100k
R3608 XX
R3609 0
R3652 0
C3635 XX CH
C3631 0.1u B
C3632 0.01u B
C3633 10u 6.3V TA
C3634 0.1u B
IC3603
A/D CONVERTER(BBI) AFC,AGC
IC3603 MB87L1241PFV-G-BND-ER
1 ADABOT
2 ADAIN
3 ADATOP
4 ADAVDD
5 ADAVSS
6 AD8IN
7 AD8BOT
8 AD8VDD
9 AD8VSS
10 AD8TOP
11 AD8TB
12 DAVSS
13 DAREF
14 APCVO
15 AGCVO
16 CLPVO
17 ACCVO
18 DATOP
19 DABOT
20 DAVDD
21 XPLRST
22 PLLVSS
23 PLLVDD
24 OSVDD
25 BCKI
26 OSVSS
27 VCXOI
28 VCXO0
29 DVDD0
30 DVSS0
31 EXCKI
32 MCSEL
33 OSCSEL
34 ACLKO
35 XACLKE
36 AOE
37 AVD
38 AHD
39 DVSS1
40 DVDD1
41 XRST
42 DCOUT7
43 DCOUT6
44 DCOUT5
45 DCOUT4
46 DCOUT3
47 DCOUT2
48 DCOUT1
49 DCOUT0
50 DVDD2
51 DVSS2
52 DYOUT7
53 DYOUT6
54 DYOUT5
55 DYOUT4
56 DYOUT3
57 DYOUT2
58 DYOUT1
59 DYOUT0
60 TS0
61 TS1
62 DVDD3
63 XSCK
64 SI
65 XCS
66 SO
67 MZSEL
68 ZCKI
69 DVSS3
70 TS2
71 VERIFY
72 TDI
73 TDO
74 TMS
75 TCK
76 TRST
77 RCKSEL
78 PSCNTO
79 DVSS4
80 ADATB
TCK
TMS
TD_3-4
TD_2-3
HI_SI
HI_SO
XHI_SCK
XSYS_RST
XCS_ALIGN
80
TO(10/16,13/16,14/16)
76
TO(4/16,10/16,13/16,14/16)
47
TO(14/16)
IFI_Y0
IFI_Y1
IFI_Y2
IFI_Y3
IFI_Y4
IFI_Y5
IFI_Y6
IFI_Y7
26
TO(3/16,6/16)
IFI_C0
IFI_C1
IFI_C2
IFI_C3
IFI_C4
IFI_C5
IFI_C6
IFI_C7
27
TO(3/17)
TD_2-3
TD_3-4
30
TO(16/16)
29
TO(3/16)
TCK
TMS
28
TO(3/16,16/16)
IFI_HD
IFI_VD
IFI_OE
AFCK
95
TO(3/16,6/16)
20
TO(3/17,6/17,13/17)
25
TO(3/16)
R3636 0
R3639 0
R3648 XX
R3646 XX
R3656 0
C3629 0.1u B
C3630 0.1u B
C3626 0.1u B
C3628 0.01u B
16

SIGNAL PATH

	VIDEO SIGNAL		
	CHROMA	Y	Y/CHROMA
REC	→	⇒	
PB			

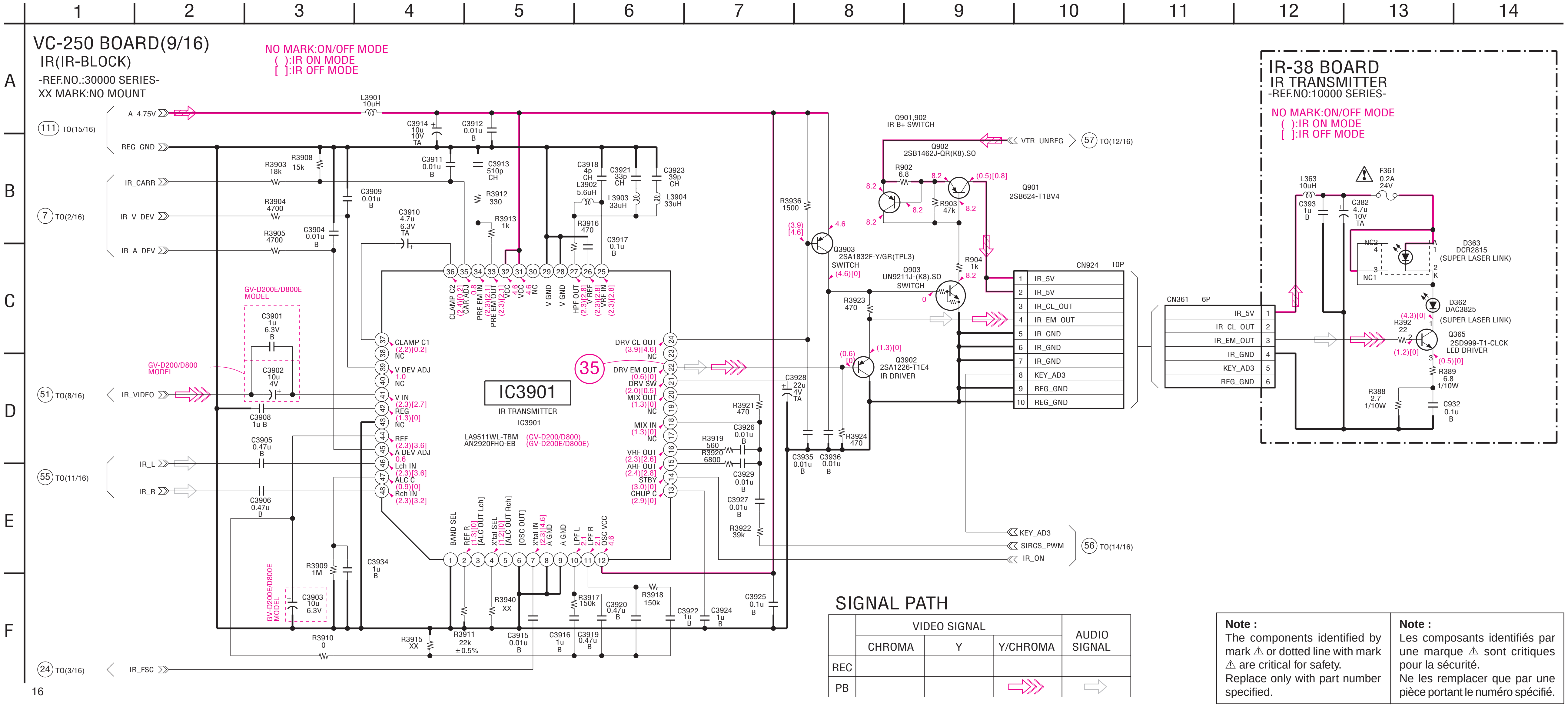
For Schematic Diagram

- Refer to page 4-7 for printed wiring board.


VC-250 BOARD(8/16)
LINE IN/OUT(IO BLOCK)
-REF.NO.:30000 SERIES-
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
IC3702
IC3702 NJM2285V-TE2
VIDEO SW
IC3703
IC3703 MM1031XML
IC3701
IC3701 VIDEO IN/OUT
AN2225FHQ-EB
AN2225
Q3701
2SC4738F-Y/GR(TPL3)
BUFFER
Q3702
ALIGN_APC_ERROR
TAKO_Y_OUT
INPUT_SEL
S_C_IN
S_Y_IN
VIDEO_IN
EX_V/Y_IN
EX_C_IN
EX_VIDEO_OUT
VIDEO_OUT
S_Y_OUT
S_C_OUT
IR_VIDEO
SDC_IN
VSP_SO
XVSP_SCK
XCS_TAKO
CAIN_Y_OUT
CAIN_C_OUT
A_4.75V
D_2.8V
TAKO_CK
TAKO_C_OUT
AGC_CONT
ACC_CONT
REG_GND
IR_VIDEO
DRV_V_O
DRV_Y_O
DRV_C_O
KINUTA_Y_OUT
KINUTA_C_OUT
41 TO(5/16,7/16)
48 TO(11/16,14/16)
86 TO(14/16)
49 TO(16/16)
85 TO(14/16)
51 TO(9/16)
50 TO(13/16)
33 TO(3/16)
110 TO(15/16)
46 TO(7/16)
44 TO(6/16)
SIGNAL PATH
VIDEO SIGNAL
CHROMA
Y
Y/CHROMA
REC
PB
16

For Schematic Diagram

- Refer to page 4-7 for VC-250 printed wiring board.
- Refer to page 4-59 for IR-38 printed wiring board.
- Refer to page 4-69 for waveform.

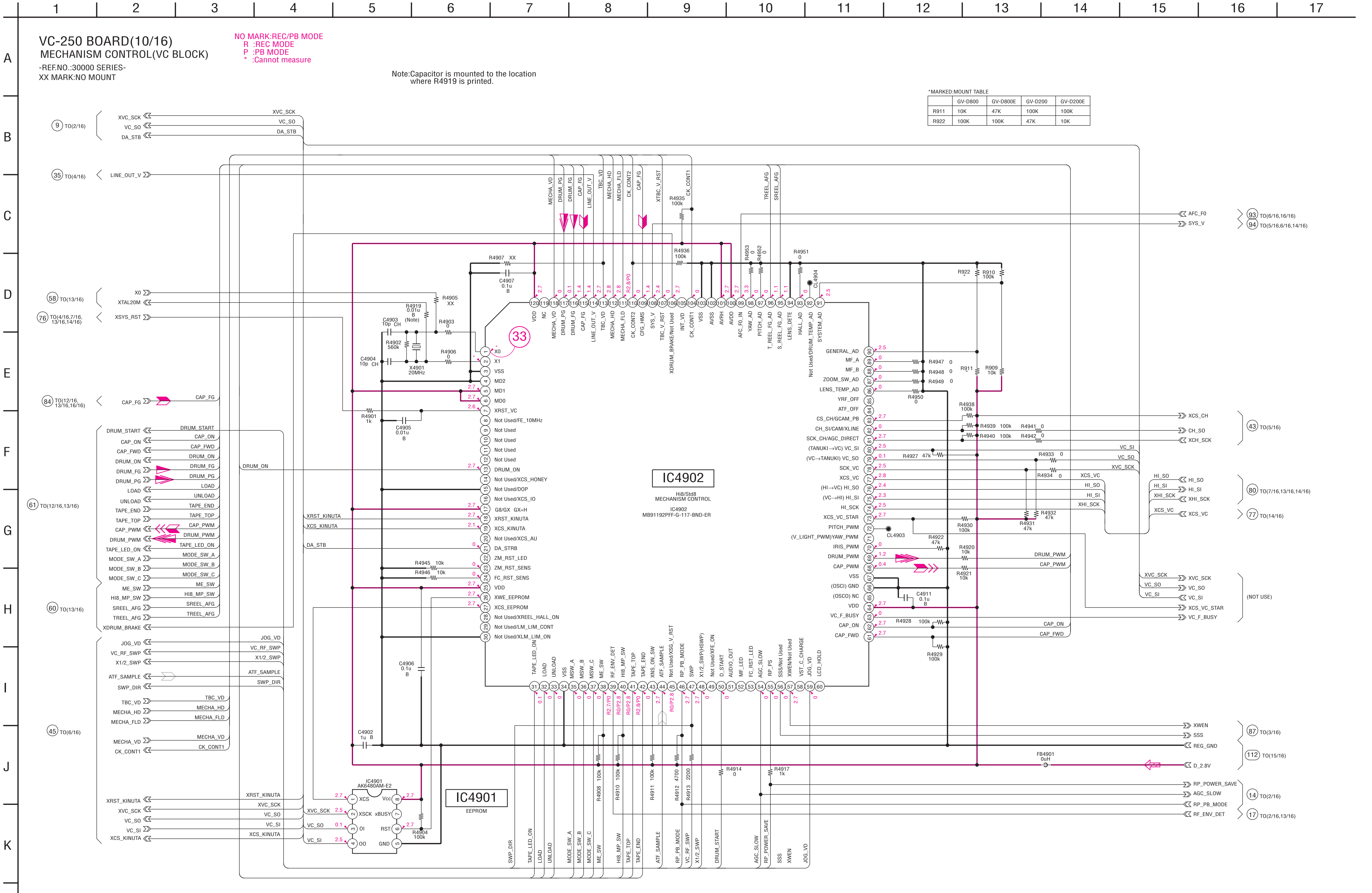

1 2 3 4 5 6 7 8 9 10 11 12 13 14
A B C D E F
VC-250 BOARD(9/16)
IR(IR-BLOCK)
-REF.NO.:30000 SERIES-
XX MARK:NO MOUNT
NO MARK:ON/OFF MODE
( ):IR ON MODE
[ ]:IR OFF MODE
(111) TO(15/16)
A_4.75V
REG_GND
(7) TO(2/16)
IR_CARR
IR_V_DEV
IR_A_DEV
(51) TO(8/16)
IR_VIDEO
(55) TO(11/16)
IR_L
IR_R
(24) TO(3/16)
IR_FSC
16
L3901 10uH
C3914 10u 10V TA
C3912 0.01u B
C3911 0.01u B
C3913 510p CH
R3912 330
R3913 1k
R3903 18k
R3908 15k
R3904 4700
R3905 4700
C3904 0.01u B
C3909 0.01u B
C3910 4.7u 6.3V TA
C3918 4p CH
L3902 5.6uH
C3921 33p CH
L3903 33uH
C3923 39p CH
L3904 33uH
R3916 470
C3917 0.1u B
GV-D200E/D800E MODEL
GV-D200/D800 MODEL
C3901 1u 6.3V B
C3902 10u 4V
C3908 1u B
C3905 0.47u B
C3906 0.47u B
R3909 1M
C3934 1u B
C3903 10u 6.3V
R3910 0
R3915 XX
R3911 22k ±0.5%
R3940 XX
C3915 0.01u B
C3916 1u B
R3917 150k
C3919 0.47u B
C3920 0.47u B
R3918 150k
C3922 1u B
C3924 1u B
C3925 0.1u B
IC3901
IR TRANSMITTER
IC3901
LA9511WL-TBM (GV-D200/D800)
AN2920FHQ-EB (GV-D200E/D800E)
35
CLAMP C1 (2.2)[0.2]
NC
V DEV ADJ 1.0
NC
V IN (2.3)[2.7]
REG (1.3)[0]
NC
REF (2.3)[3.6]
A DEV ADJ 0.6
Lch IN (2.3)[3.6]
ALC C (0.9)[0]
Rch IN (2.3)[3.2]
CLAMP C2 (2.4)[0.2]
CAR ADJ
PRE EM IN (2.3)[2.1]
PRE EM OUT (2.3)[2.1]
VCC 4.6
VCC 4.6
NC
V GND
V GND
HPF OUT (2.3)[2.8]
V REF (2.3)[2.8]
VRF IN (2.3)[2.8]
DRV CL OUT (3.9)[4.6]
NC
DRV EM OUT (0.6)[0]
DRV SW (2.0)[0.5]
MIX OUT (1.3)[0]
NC
MIX IN (1.3)[0]
NC
VRF OUT (2.3)[2.6]
ARF OUT (2.4)[2.8]
STBY (3.0)[0]
CHUP C (2.9)[0]
BAND SEL
REF R (1.3)[0]
[ALC OUT Lch]
X'tal SEL (1.2)[0]
[ALC OUT Rch]
[OSC OUT]
X'tal IN (2.3)[4.6]
A GND
LPF L 2.1
LPF R 2.1
OSC VCC 4.6
R3921 470
C3926 0.01u B
R3919 560
R3920 6800
C3929 0.01u B
C3927 0.01u B
R3922 39k
C3928 22u 4V TA
R3924 470
C3935 0.01u B
C3936 0.01u B
R3936 1500
(3.9) [4.6]
4.6
Q3903 2SA1832F-Y/GR(TPL3) SWITCH
(4.6)[0]
R3923 470
Q3902 2SA1226-T1E4 IR DRIVER
(0.6) [0]
(1.3)[0]
Q901,902 IR B+ SWITCH
Q902 2SB1462J-QR(K8).SO
VTR_UNREG
(57) TO(12/16)
R902 6.8
8.2
(0.5)[0.8]
Q901 2SB624-T1BV4
R903 47k
R904 1k
Q903 UN9211J-(K8).SO SWITCH
0
CN924 10P
1 IR_5V
2 IR_5V
3 IR_CL_OUT
4 IR_EM_OUT
5 IR_GND
6 IR_GND
7 IR_GND
8 KEY_AD3
9 REG_GND
10 REG_GND
KEY_AD3
SIRCS_PWM
IR_ON
(56) TO(14/16)
IR-38 BOARD
IR TRANSMITTER
-REF.NO:10000 SERIES-
NO MARK:ON/OFF MODE
( ):IR ON MODE
[ ]:IR OFF MODE
CN361 6P
IR_5V 1
IR_CL_OUT 2
IR_EM_OUT 3
IR_GND 4
KEY_AD3 5
REG_GND 6
L363 10uH
C393 1u B
C382 4.7u 10V TA
F361 0.2A 24V
D363 DCR2815 (SUPER LASER LINK)
NC2 4
NC1 3
D362 DAC3825 (SUPER LASER LINK)
R392 22
(4.3)[0]
(1.2)[0]
Q365 2SD999-T1-CLCK LED DRIVER
(0.5)[0]
R389 6.8 1/10W
R388 2.7 1/10W
C932 0.1u B

SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC				
PB			⇛	⇨

Note :	**Note :**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

For Schematic Diagram
- Refer to page 4-7 for printed wiring board.
- Refer to page 4-69 for waveform.


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
A B C D E F G H I J K L M
VC-250 BOARD(10/16)
MECHANISM CONTROL(VC BLOCK)
-REF.NO.:30000 SERIES-
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
* :Cannot measure
Note:Capacitor is mounted to the location where R4919 is printed.
IC4902
Hi8/Std8
MECHANISM CONTROL
IC4902
MB91192PFF-G-117-BND-ER
IC4901
EEPROM
IC4901
AK6480AM-E2
33
X4901
20MHz
FB4901
0uH
TO(2/16)
TO(4/16)
TO(13/16)
TO(4/16,7/16,13/16,14/16)
TO(12/16,13/16,16/16)
TO(12/16,13/16)
TO(13/16)
TO(6/16)
TO(6/16,16/16)
TO(5/16,6/16,14/16)
TO(5/16)
TO(7/16,13/16,14/16)
TO(14/16)
(NOT USE)
TO(3/16)
TO(15/16)
TO(2/16)
TO(2/16,13/16)
XVC_SCK
VC_SO
DA_STB
LINE_OUT_V
X0
XTAL20M
XSYS_RST
CAP_FG
DRUM_START
CAP_ON
CAP_FWD
DRUM_ON
DRUM_FG
DRUM_PG
LOAD
UNLOAD
TAPE_END
TAPE_TOP
CAP_PWM
DRUM_PWM
TAPE_LED_ON
MODE_SW_A
MODE_SW_B
MODE_SW_C
ME_SW
HI8_MP_SW
SREEL_AFG
TREEL_AFG
XDRUM_BRAKE
JOG_VD
VC_RF_SWP
X1/2_SWP
ATF_SAMPLE
SWP_DIR
TBC_VD
MECHA_HD
MECHA_FLD
MECHA_VD
CK_CONT1
XRST_KINUTA
VC_SI
XCS_KINUTA
AFC_F0
SYS_V
XCS_CH
CH_SO
XCH_SCK
HI_SO
HI_SI
XHI_SCK
XCS_VC
XCS_VC_STAR
VC_F_BUSY
XWEN
SSS
REG_GND
D_2.8V
RP_POWER_SAVE
AGC_SLOW
RP_PB_MODE
RF_ENV_DET
16

*MARKED:MOUNT TABLE

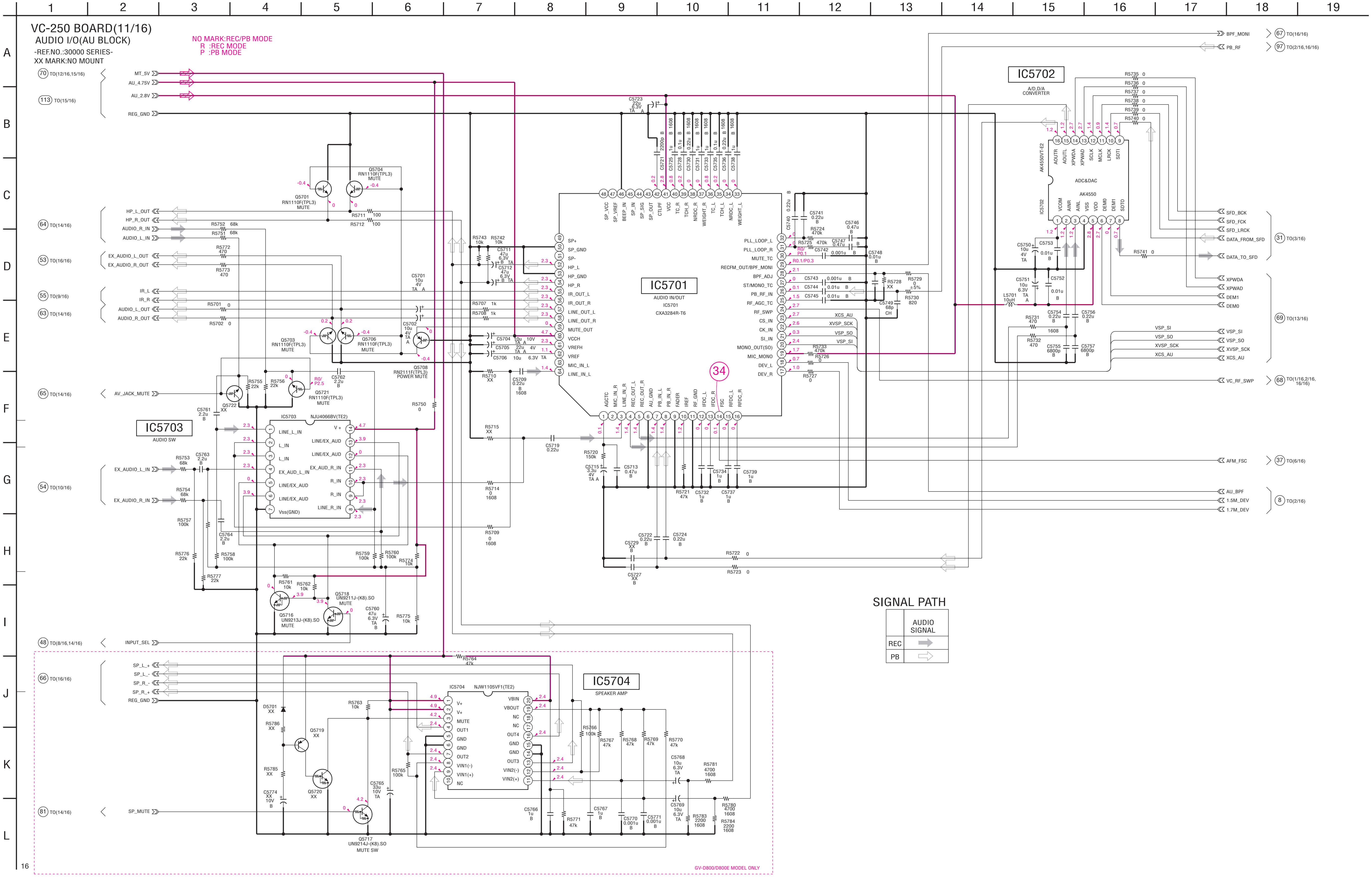
	GV-D800	GV-D800E	GV-D200	GV-D200E
R911	10K	47K	100K	100K
R922	100K	100K	47K	10K

SIGNAL PATH

	REC	REC/PB	PB
Drum speed servo		▶	
Drum phase servo		▶≫	
Drum servo (speed and phase)		▶⋙	
Capstan speed servo		➤	
Capstan servo (speed and phase)		➤≫	
Ref.signal			▷

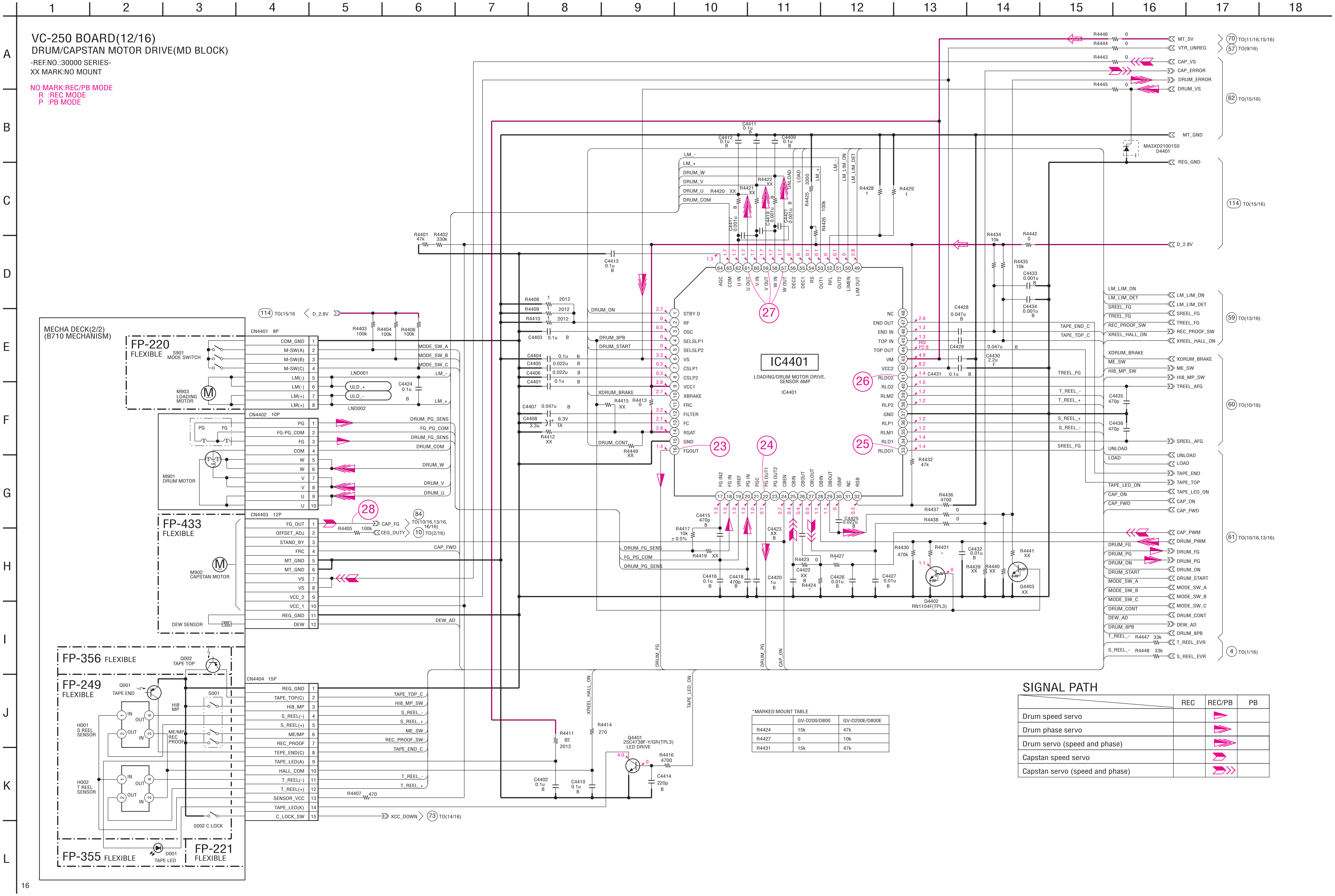
For Schematic Diagram

- Refer to page 4-7 for printed wiring board.
- Refer to page 4-69 for waveform.


VC-250 BOARD(11/16)
AUDIO I/O(AU BLOCK)
-REF.NO.:30000 SERIES-
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
MT_5V
AU_4.75V
AU_2.8V
REG_GND
HP_L_OUT
HP_R_OUT
AUDIO_R_IN
AUDIO_L_IN
EX_AUDIO_L_OUT
EX_AUDIO_R_OUT
IR_L
IR_R
AUDIO_L_OUT
AUDIO_R_OUT
AV_JACK_MUTE
EX_AUDIO_L_IN
EX_AUDIO_R_IN
INPUT_SEL
SP_L_+
SP_L_-
SP_R_-
SP_R_+
SP_MUTE
BPF_MONI
PB_RF
SFD_BCK
SFD_FCK
SFD_LRCK
DATA_FROM_SFD
DATA_TO_SFD
XPWDA
XPWAD
DEM1
DEM0
VSP_SI
VSP_SO
XVSP_SCK
XCS_AU
VC_RF_SWP
AFM_FSC
AU_BPF
1.5M_DEV
1.7M_DEV
IC5701
AUDIO IN/OUT
IC5701
CXA3284R-T6
IC5702
A/D,D/A
CONVERTER
AK4550VT-E2
ADC&DAC
AK4550
IC5703
AUDIO SW
NJU4066BV(TE2)
IC5704
SPEAKER AMP
NJW1105VF1(TE2)
Q5701 RN1110F(TPL3) MUTE
Q5704 RN1110F(TPL3) MUTE
Q5703 RN1110F(TPL3) MUTE
Q5706 RN1110F(TPL3) MUTE
Q5708 RN2111F(TPL3) POWER MUTE
Q5721 RN1110F(TPL3) MUTE
Q5722 XX
Q5716 UN9213J-(K8).SO MUTE
Q5718 UN9211J-(K8).SO MUTE
Q5717 UN9214J-(K8).SO MUTE SW
Q5719 XX
Q5720 XX
D5701 XX
34
SIGNAL PATH
AUDIO SIGNAL
REC
PB
GV-D800/D800E MODEL ONLY

For Schematic Diagram

- Refer to page 4-7 for VC-250 printed wiring board.
- Refer to page 4-67 for FP-249, FP-355, FP-356 printed wiring boards.
- Refer to page 4-68,69 for waveforms.


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
A
B
C
D
E
F
G
H
I
J
K
L
VC-250 BOARD(12/16)
DRUM/CAPSTAN MOTOR DRIVE(MD BLOCK)
-REF.NO.:30000 SERIES-
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
MECHA DECK(2/2)
(B710 MECHANISM)
FP-220 FLEXIBLE
S901 MODE SWITCH
M903 LOADING MOTOR
M901 DRUM MOTOR
FP-433 FLEXIBLE
M902 CAPSTAN MOTOR
DEW SENSOR
FP-356 FLEXIBLE
Q002 TAPE TOP
FP-249 FLEXIBLE
Q001 TAPE END
H001 S REEL SENSOR
H002 T REEL SENSOR
S001 HI8 MP
ME/MP REC PROOF
S002 C LOCK
FP-355 FLEXIBLE
D001 TAPE LED
FP-221 FLEXIBLE
CN4401 8P
CN4402 10P
CN4403 12P
CN4404 15P
IC4401
LOADING/DRUM MOTOR DRIVE, SENSOR AMP
Q4401 2SC4738F-Y/GR(TPL3) LED DRIVE
Q4402 RN1104F(TPL3)
Q4403 XX
D4401 MA3XD21001S0
MT_5V
VTR_UNREG
CAP_VS
CAP_ERROR
DRUM_ERROR
DRUM_VS
MT_GND
REG_GND
D_2.8V
LM_LIM_ON
LM_LIM_DET
SREEL_FG
TREEL_FG
REC_PROOF_SW
XREEL_HALL_ON
XDRUM_BRAKE
ME_SW
HI8_MP_SW
TREEL_AFG
SREEL_AFG
UNLOAD
LOAD
TAPE_END
TAPE_TOP
TAPE_LED_ON
CAP_ON
CAP_FWD
CAP_PWM
DRUM_PWM
DRUM_FG
DRUM_PG
DRUM_ON
DRUM_START
MODE_SW_A
MODE_SW_B
MODE_SW_C
DRUM_CONT
DEW_AD
DRUM_8PB
T_REEL_EVR
S_REEL_EVR
XCC_DOWN
(70) TO(11/16,15/16)
(57) TO(9/16)
(62) TO(15/16)
(114) TO(15/16)
(59) TO(13/16)
(60) TO(10/16)
(61) TO(10/16,13/16)
(4) TO(1/16)
(73) TO(14/16)
(84) TO(10/16,13/16, 16/16)
(10) TO(2/16)
23
24
25
26
27
28
16

*MARKED:MOUNT TABLE

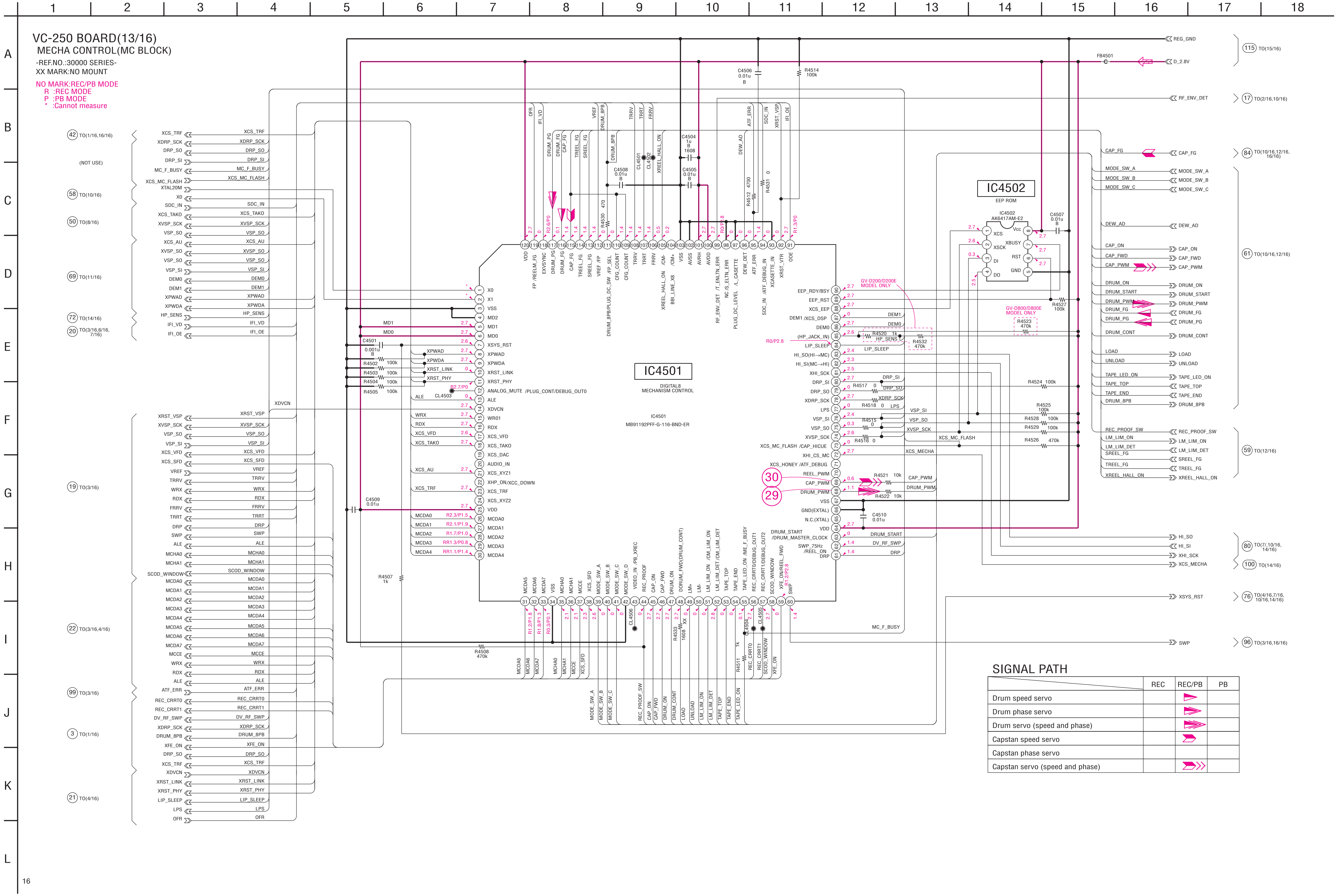
	GV-D200/D800	GV-D200E/D800E
R4424	15k	47k
R4427	0	10k
R4431	15k	47k

SIGNAL PATH

	REC	REC/PB	PB
Drum speed servo		▶	
Drum phase servo		▶▷	
Drum servo (speed and phase)		▶▷▷	
Capstan speed servo		➤	
Capstan servo (speed and phase)		➤»	

DRUM/CAPSTAN MOTOR DRIVE
VC-250 (12/16)

For Schematic Diagram
- Refer to page 4-7 for printed wiring board.
- Refer to page 4-69 for waveforms.


VC-250 BOARD(13/16)
MECHA CONTROL(MC BLOCK)
-REF.NO.:30000 SERIES-
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
* :Cannot measure
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
A B C D E F G H I J K L
(42) TO(1/16,16/16)
(NOT USE)
(58) TO(10/16)
(50) TO(8/16)
(69) TO(11/16)
(72) TO(14/16)
(20) TO(3/16,6/16,7/16)
(19) TO(3/16)
(22) TO(3/16,4/16)
(99) TO(3/16)
(3) TO(1/16)
(21) TO(4/16)
(115) TO(15/16)
(17) TO(2/16,10/16)
(84) TO(10/16,12/16,16/16)
(61) TO(10/16,12/16)
(59) TO(12/16)
(80) TO(7/,10/16,14/16)
(100) TO(14/16)
(76) TO(4/16,7/16,10/16,14/16)
(96) TO(3/16,16/16)
IC4501
DIGITAL8
MECHANISM CONTROL
IC4501
MB91192PFF-G-116-BND-ER
IC4502
EEP ROM
IC4502
AK6417AM-E2
GV-D200/D200E MODEL ONLY
GV-D800/D800E MODEL ONLY
REG_GND
D_2.8V
FB4501
RF_ENV_DET
CAP_FG
MODE_SW_A
MODE_SW_B
MODE_SW_C
DEW_AD
CAP_ON
CAP_FWD
CAP_PWM
DRUM_ON
DRUM_START
DRUM_PWM
DRUM_FG
DRUM_PG
DRUM_CONT
LOAD
UNLOAD
TAPE_LED_ON
TAPE_TOP
TAPE_END
DRUM_8PB
REC_PROOF_SW
LM_LIM_ON
LM_LIM_DET
SREEL_FG
TREEL_FG
XREEL_HALL_ON
HI_SO
HI_SI
XHI_SCK
XCS_MECHA
XSYS_RST
SWP
MC_F_BUSY
XDVCN
(30)
(29)
16

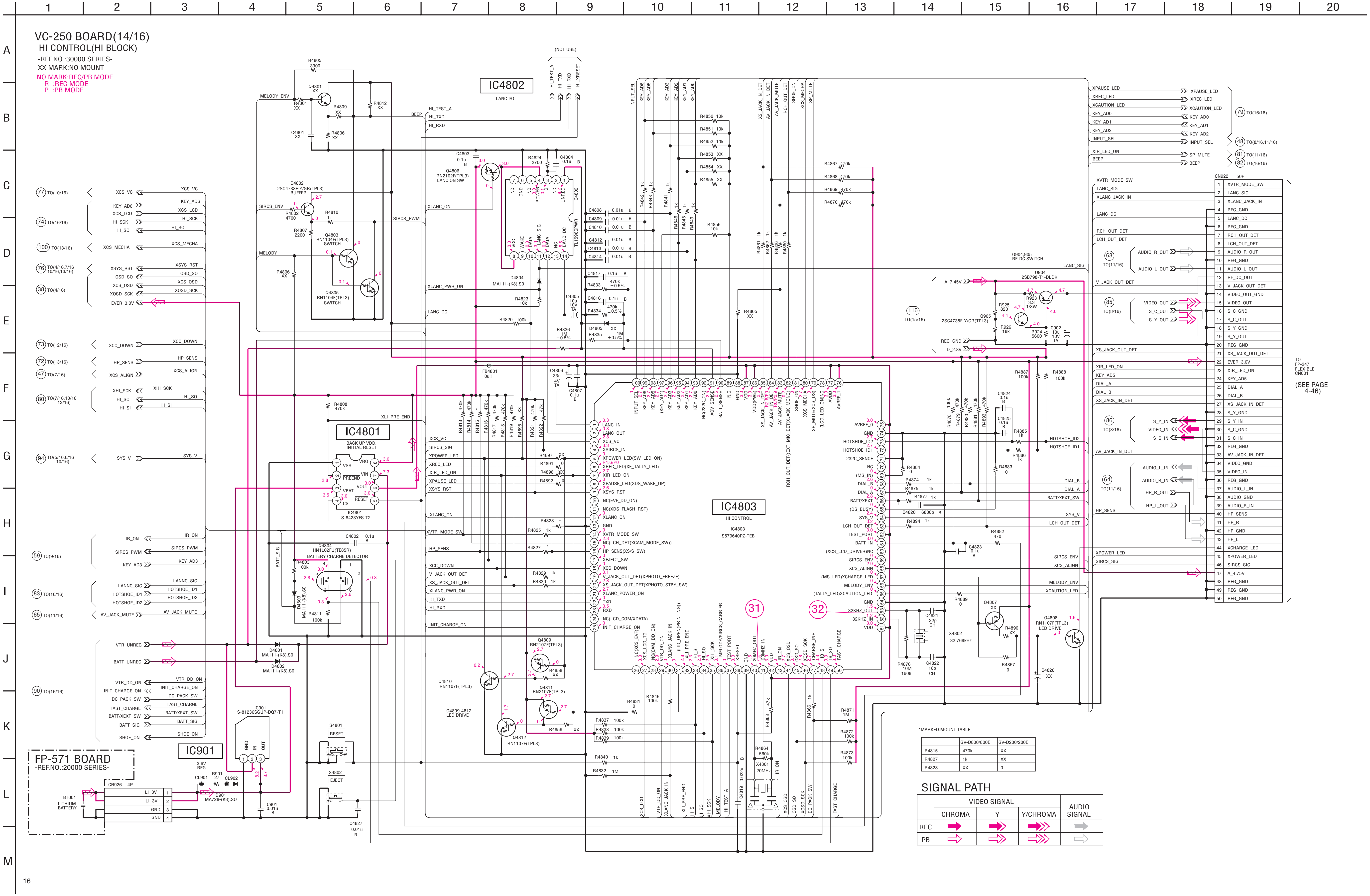
SIGNAL PATH

	REC	REC/PB	PB
Drum speed servo		▶	
Drum phase servo		▶>	
Drum servo (speed and phase)		▶>>	
Capstan speed servo		➤	
Capstan phase servo			
Capstan servo (speed and phase)		➤>>	

MECHA CONTROL
VC-250 (13/16)

For Schematic Diagram

- Refer to page 4-7 for VC-250 printed wiring board.
- Refer to page 4-67 for FP-571 printed wiring board.
- Refer to page 4-69 for waveforms.


VC-250 BOARD(14/16)
HI CONTROL(HI BLOCK)
-REF.NO.:30000 SERIES-
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
IC4802
LANC I/O
(NOT USE)
IC4801
BACK UP VDD, INITIAL RESET
IC4801 S-8423YFS-T2
IC4803
HI CONTROL
IC4803 S579640PZ-TEB
IC901
IC901 S-81236SGUP-DQ7-T1
Q4804 HN1L02FU(TE85R) BATTERY CHARGE DETECTOR
Q4802 2SC4738F-Y/GR(TPL3) BUFFER
Q4806 RN2102F(TPL3) LANC ON SW
Q4803 RN1104F(TPL3) SWITCH
Q4805 RN1104F(TPL3) SWITCH
D4804 MA111-(K8).S0
Q904,905 RF-DC SWITCH
Q904 2SB798-T1-DLDK
Q905 2SC4738F-Y/GR(TPL3)
Q4808 RN1107F(TPL3) LED DRIVE
Q4809-4812 LED DRIVE
Q4810 RN1107F(TPL3)
Q4812 RN1107F(TPL3)
Q4809 RN2107F(TPL3)
Q4811 RN2107F(TPL3)
D4801 MA111-(K8).S0
D4802 MA111-(K8).S0
D901 MA728-(K8).SO
X4802 32.768kHz
X4801 20MHz
S4801 RESET
S4802 EJECT
FP-571 BOARD
-REF.NO.:20000 SERIES-
BT001 LITHIUM BATTERY
CN926 4P
CN922 50P
TO FP-247 FLEXIBLE CN001
(SEE PAGE 4-46)
31
32
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
A B C D E F G H I J K L M
16

*MARKED:MOUNT TABLE

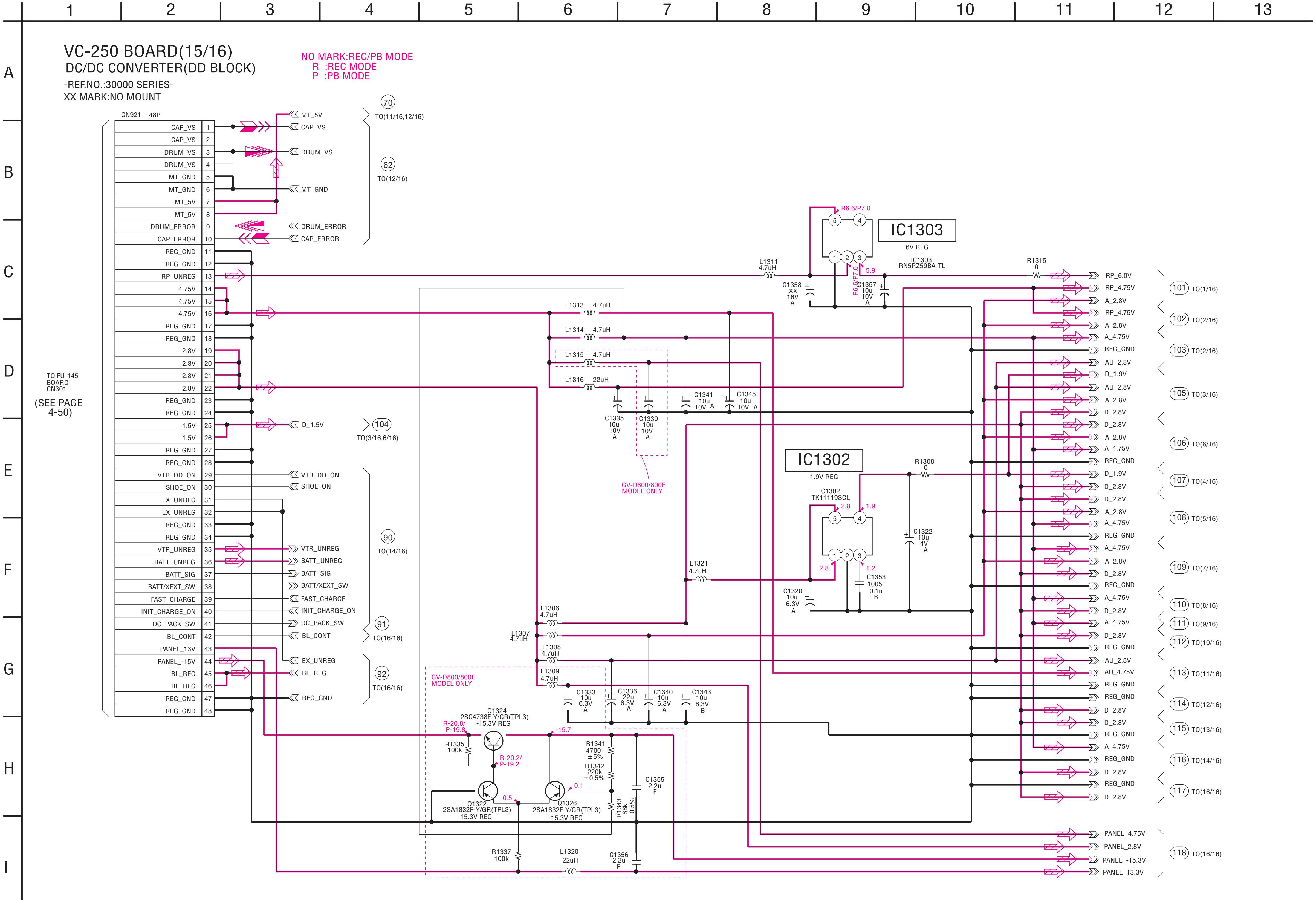
	GV-D800/800E	GV-D200/200E
R4815	470k	XX
R4827	1k	XX
R4828	XX	0

SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC	➡	➡》	➡》》	➡
PB	⇨	⇨》	⇨》》	⇨

For Schematic Diagram

• Refer to page 4-7 for printed wiring board.


1
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10
11
12
13
A
B
C
D
E
F
G
H
I
J
VC-250 BOARD(15/16)
DC/DC CONVERTER(DD BLOCK)
-REF.NO.:30000 SERIES-
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
CN921 48P
CAP_VS 1
CAP_VS 2
DRUM_VS 3
DRUM_VS 4
MT_GND 5
MT_GND 6
MT_5V 7
MT_5V 8
DRUM_ERROR 9
CAP_ERROR 10
REG_GND 11
REG_GND 12
RP_UNREG 13
4.75V 14
4.75V 15
4.75V 16
REG_GND 17
REG_GND 18
2.8V 19
2.8V 20
2.8V 21
2.8V 22
REG_GND 23
REG_GND 24
1.5V 25
1.5V 26
REG_GND 27
REG_GND 28
VTR_DD_ON 29
SHOE_ON 30
EX_UNREG 31
EX_UNREG 32
REG_GND 33
REG_GND 34
VTR_UNREG 35
BATT_UNREG 36
BATT_SIG 37
BATT/XEXT_SW 38
FAST_CHARGE 39
INIT_CHARGE_ON 40
DC_PACK_SW 41
BL_CONT 42
PANEL_13V 43
PANEL_-15V 44
BL_REG 45
BL_REG 46
REG_GND 47
REG_GND 48
TO FU-145 BOARD CN301
(SEE PAGE 4-50)
MT_5V
CAP_VS
DRUM_VS
MT_GND
DRUM_ERROR
CAP_ERROR
(70) TO(11/16,12/16)
(62) TO(12/16)
D_1.5V
(104) TO(3/16,6/16)
VTR_DD_ON
SHOE_ON
VTR_UNREG
BATT_UNREG
BATT_SIG
BATT/XEXT_SW
FAST_CHARGE
INIT_CHARGE_ON
DC_PACK_SW
BL_CONT
(90) TO(14/16)
(91) TO(16/16)
EX_UNREG
BL_REG
REG_GND
(92) TO(16/16)
IC1303
6V REG
IC1303 RN5RZ59BA-TL
R6.6/P7.0
5.9
L1311 4.7uH
C1358 XX 16V A
C1357 10u 10V A
R1315 0
L1313 4.7uH
L1314 4.7uH
L1315 4.7uH
L1316 22uH
C1335 10u 10V A
C1339 10u 10V A
C1341 10u 10V A
C1345 10u 10V A
GV-D800/800E MODEL ONLY
IC1302
1.9V REG
IC1302 TK11119SCL
2.8
1.9
1.2
R1308 0
C1322 10u 4V A
L1321 4.7uH
C1320 10u 6.3V A
C1353 1005 0.1u B
L1306 4.7uH
L1307 4.7uH
L1308 4.7uH
L1309 4.7uH
C1333 10u 6.3V A
C1336 22u 6.3V A
C1340 10u 6.3V A
C1343 10u 6.3V B
GV-D800/800E MODEL ONLY
Q1324 2SC4738F-Y/GR(TPL3) -15.3V REG
R-20.8/ P-19.8
-15.7
R1335 100k
R-20.2/ P-19.2
R1341 4700 ±5%
R1342 220k ±0.5%
0.5
0.1
Q1322 2SA1832F-Y/GR(TPL3) -15.3V REG
Q1326 2SA1832F-Y/GR(TPL3) -15.3V REG
R1343 68k ±0.5%
C1355 2.2u F
R1337 100k
L1320 22uH
C1356 2.2u F
RP_6.0V
RP_4.75V
A_2.8V
RP_4.75V
A_2.8V
A_4.75V
REG_GND
AU_2.8V
D_1.9V
AU_2.8V
A_2.8V
D_2.8V
D_2.8V
A_2.8V
A_4.75V
REG_GND
D_1.9V
D_2.8V
D_2.8V
A_2.8V
A_4.75V
REG_GND
A_4.75V
A_2.8V
D_2.8V
REG_GND
A_4.75V
D_2.8V
A_4.75V
D_2.8V
REG_GND
AU_2.8V
AU_4.75V
REG_GND
REG_GND
D_2.8V
D_2.8V
REG_GND
A_4.75V
REG_GND
D_2.8V
REG_GND
D_2.8V
(101) TO(1/16)
(102) TO(2/16)
(103) TO(2/16)
(105) TO(3/16)
(106) TO(6/16)
(107) TO(4/16)
(108) TO(5/16)
(109) TO(7/16)
(110) TO(8/16)
(111) TO(9/16)
(112) TO(10/16)
(113) TO(11/16)
(114) TO(12/16)
(115) TO(13/16)
(116) TO(14/16)
(117) TO(16/16)
PANEL_4.75V
PANEL_2.8V
PANEL_-15.3V
PANEL_13.3V
(118) TO(16/16)

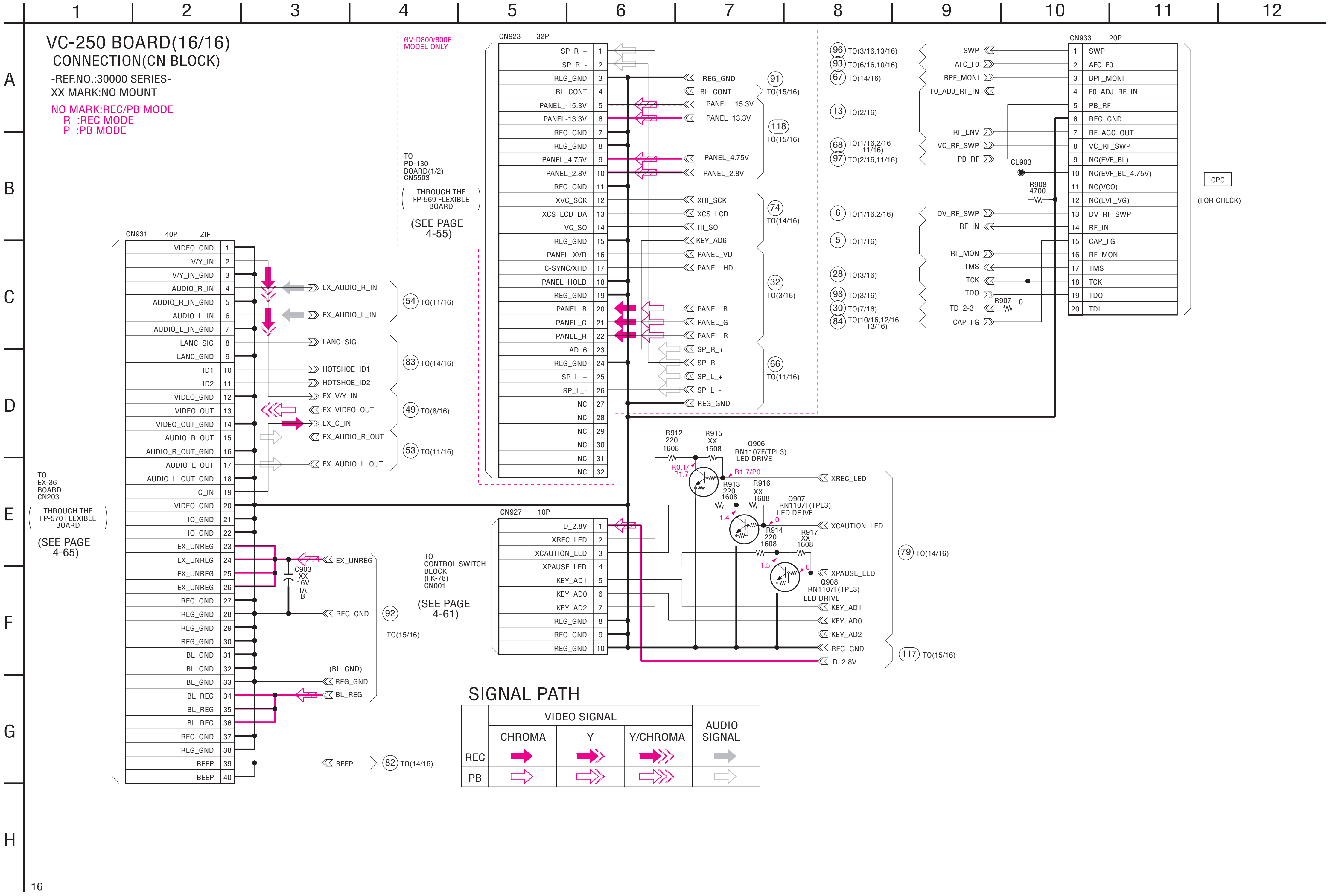
SIGNAL PATH

	REC	REC/PB	PB
Drum servo (speed and phase)		▶	
Capstan servo (speed and phase)		▶	

16

For Schematic Diagram

- Refer to page 4-7 for printed wiring board.


1
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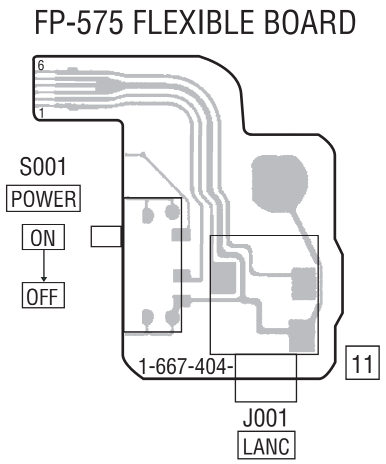
9
10
11
12
A
B
C
D
E
F
G
H
VC-250 BOARD(16/16)
CONNECTION(CN BLOCK)
-REF.NO.:30000 SERIES-
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
GV-D800/800E MODEL ONLY
TO PD-130 BOARD(1/2) CN5503
THROUGH THE FP-569 FLEXIBLE BOARD
(SEE PAGE 4-55)
CN923 32P
SP_R_+
SP_R_-
REG_GND
BL_CONT
PANEL_-15.3V
PANEL-13.3V
PANEL_4.75V
PANEL_2.8V
XVC_SCK
XCS_LCD_DA
VC_SO
PANEL_XVD
C-SYNC/XHD
PANEL_HOLD
PANEL_B
PANEL_G
PANEL_R
AD_6
SP_L_+
SP_L_-
NC
PANEL_13.3V
XHI_SCK
XCS_LCD
HI_SO
KEY_AD6
PANEL_VD
PANEL_HD
91 TO(15/16)
118 TO(15/16)
74 TO(14/16)
32 TO(3/16)
66 TO(11/16)
96 TO(3/16,13/16)
93 TO(6/16,10/16)
67 TO(14/16)
13 TO(2/16)
68 TO(1/16,2/16 11/16)
97 TO(2/16,11/16)
6 TO(1/16,2/16)
5 TO(1/16)
28 TO(3/16)
98 TO(3/16)
30 TO(7/16)
84 TO(10/16,12/16, 13/16)
SWP
AFC_F0
BPF_MONI
F0_ADJ_RF_IN
RF_ENV
VC_RF_SWP
PB_RF
DV_RF_SWP
RF_IN
RF_MON
TMS
TCK
TDO
TD_2-3
CAP_FG
CL903
R908 4700
R907 0
CN933 20P
REG_GND
RF_AGC_OUT
NC(EVF_BL)
NC(EVF_BL_4.75V)
NC(VCO)
NC(EVF_VG)
TDI
CPC
(FOR CHECK)
CN931 40P ZIF
VIDEO_GND
V/Y_IN
V/Y_IN_GND
AUDIO_R_IN
AUDIO_R_IN_GND
AUDIO_L_IN
AUDIO_L_IN_GND
LANC_SIG
LANC_GND
ID1
ID2
VIDEO_OUT
VIDEO_OUT_GND
AUDIO_R_OUT
AUDIO_R_OUT_GND
AUDIO_L_OUT
AUDIO_L_OUT_GND
C_IN
IO_GND
EX_UNREG
BL_GND
BL_REG
BEEP
EX_AUDIO_R_IN
EX_AUDIO_L_IN
HOTSHOE_ID1
HOTSHOE_ID2
EX_V/Y_IN
EX_VIDEO_OUT
EX_C_IN
EX_AUDIO_R_OUT
EX_AUDIO_L_OUT
54 TO(11/16)
83 TO(14/16)
49 TO(8/16)
53 TO(11/16)
C903 XX 16V TA B
92 TO(15/16)
(BL_GND)
82 TO(14/16)
TO EX-36 BOARD CN203
THROUGH THE FP-570 FLEXIBLE BOARD
(SEE PAGE 4-65)
TO CONTROL SWITCH BLOCK (FK-78) CN001
(SEE PAGE 4-61)
CN927 10P
D_2.8V
XREC_LED
XCAUTION_LED
XPAUSE_LED
KEY_AD1
KEY_AD0
KEY_AD2
R912 220 1608
R915 XX 1608
Q906 RN1107F(TPL3) LED DRIVE
R0.1/P1.7
R1.7/P0
R913 220 1608
R916 XX 1608
Q907 RN1107F(TPL3) LED DRIVE
1.4
0
R914 220 1608
R917 XX 1608
1.5
0
Q908 RN1107F(TPL3) LED DRIVE
79 TO(14/16)
117 TO(15/16)
16

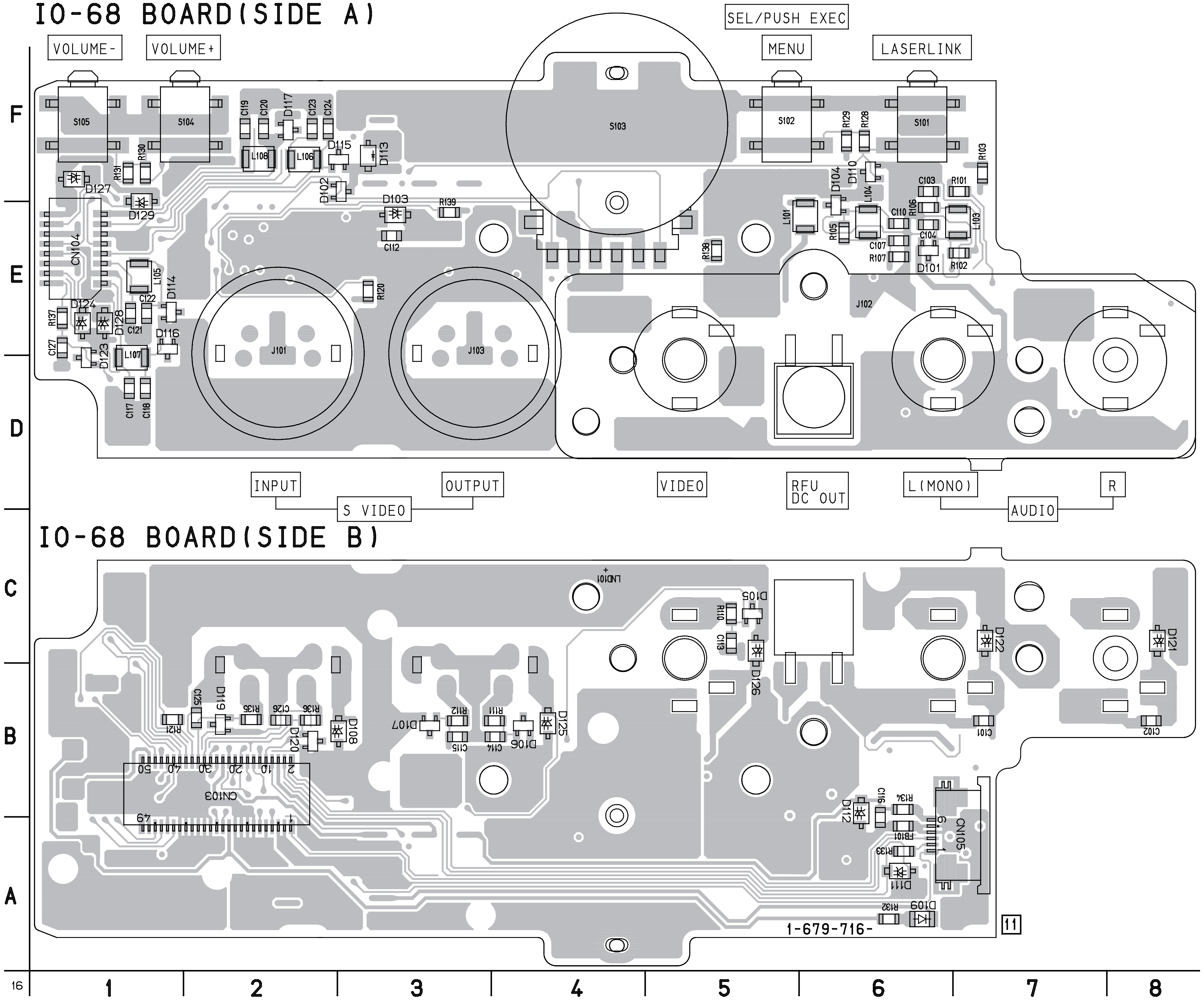
SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC	➡	➡≫	➡≫≫	➡
PB	⇨	⇨≫	⇨≫≫	⇨

FP-575 (LANC), IO-68 (AV IN/OUT) PRINTED WIRING BOARDS

— Ref. No. IO-68 Board; 10,000 Series —

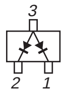

FP-575 FLEXIBLE BOARD
6
1
S001
POWER
ON
OFF
1-667-404-
11
J001
LANC


IO-68 BOARD(SIDE A)
VOLUME-
VOLUME+
SEL/PUSH EXEC
MENU
LASERLINK
S105
S104
S103
S102
S101
C119
C120
D117
C123
C124
L108
L106
D115
D113
D102
D103
R139
C112
R130
R131
D127
D129
CN104
L105
C122
D114
R120
D124
R137
D128
C121
D116
C127
D123
L107
C117
C118
J101
J103
J102
R129
R128
R103
D104
D110
L104
L101
R105
R138
C103
R101
C110
R106
L103
C107
R107
C104
D101
R102
INPUT
OUTPUT
S VIDEO
VIDEO
RFU DC OUT
L(MONO)
R
AUDIO
IO-68 BOARD(SIDE B)
LND101
D105
R110
C113
D126
D122
D121
C125
D119
R135
C126
R136
R121
D120
D108
D107
R112
R111
C115
C114
D106
D125
C101
C102
CN103
50
40
30
20
10
2
49
1
D112
C116
R134
FB101
R133
D111
CN105
6
1
R132
D109
1-679-716-
11
F
E
D
C
B
A
16
1
2
3
4
5
6
7
8

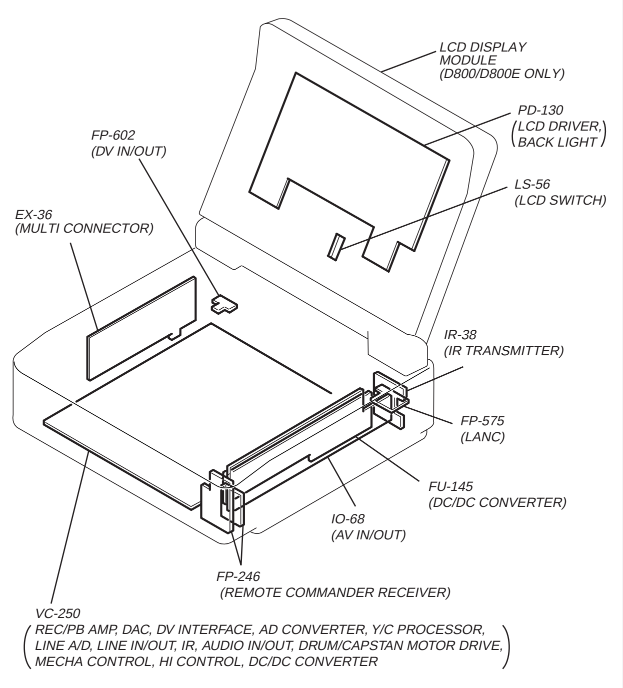
For printed wiring board

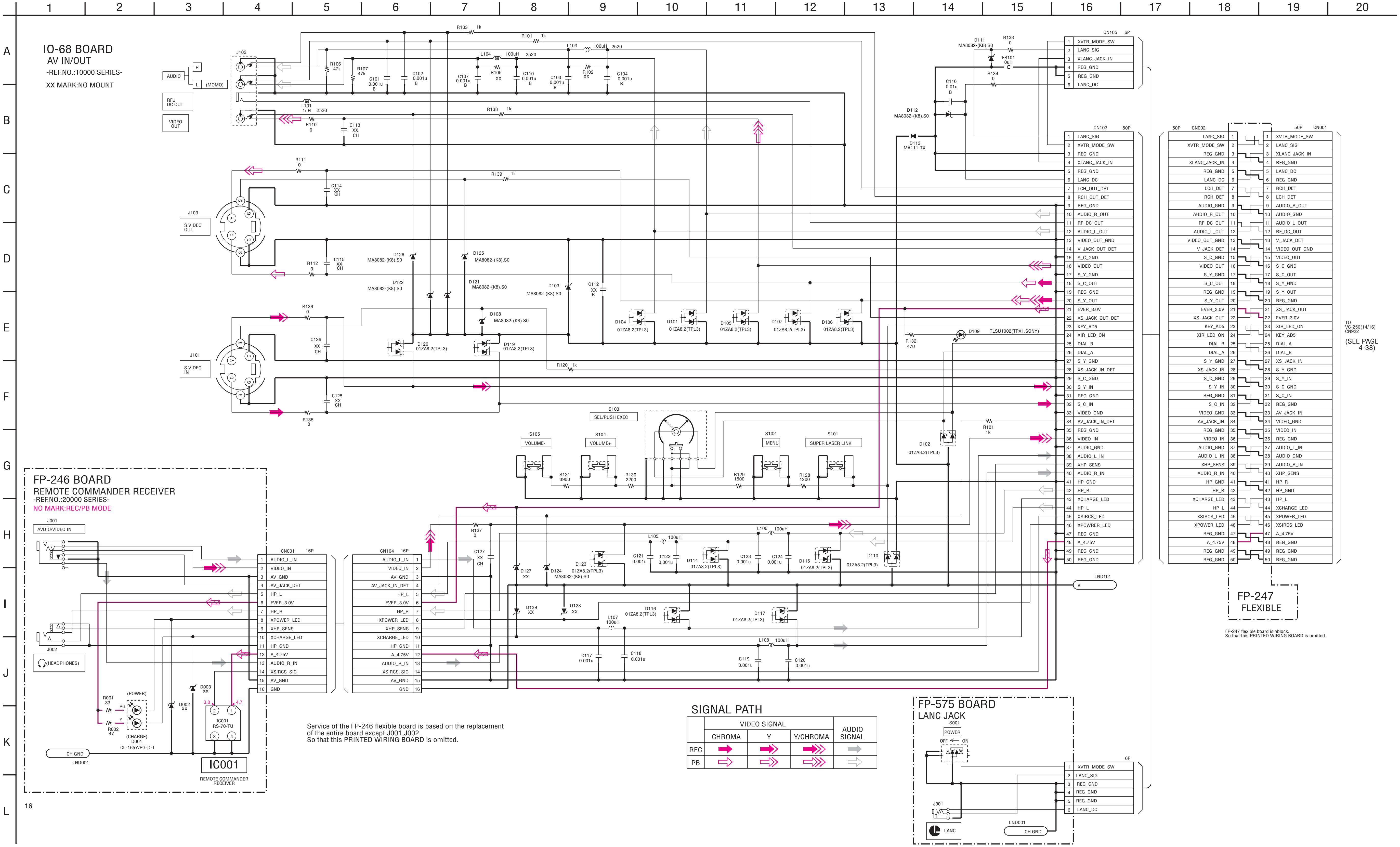
- Refer to page 4-72 for parts location.
- IO-68 board consists of multiple layers. However, only the sides (layers) A and B are shown.
- Chip parts

Diode



There are few cases that the part printed on this diagram isn't mounted in this model.


LCD DISPLAY MODULE (D800/D800E ONLY)
PD-130 (LCD DRIVER, BACK LIGHT)
FP-602 (DV IN/OUT)
LS-56 (LCD SWITCH)
EX-36 (MULTI CONNECTOR)
IR-38 (IR TRANSMITTER)
FP-575 (LANC)
FU-145 (DC/DC CONVERTER)
IO-68 (AV IN/OUT)
FP-246 (REMOTE COMMANDER RECEIVER)
VC-250 (REC/PB AMP, DAC, DV INTERFACE, AD CONVERTER, Y/C PROCESSOR, LINE A/D, LINE IN/OUT, IR, AUDIO IN/OUT, DRUM/CAPSTAN MOTOR DRIVE, MECHA CONTROL, HI CONTROL, DC/DC CONVERTER)

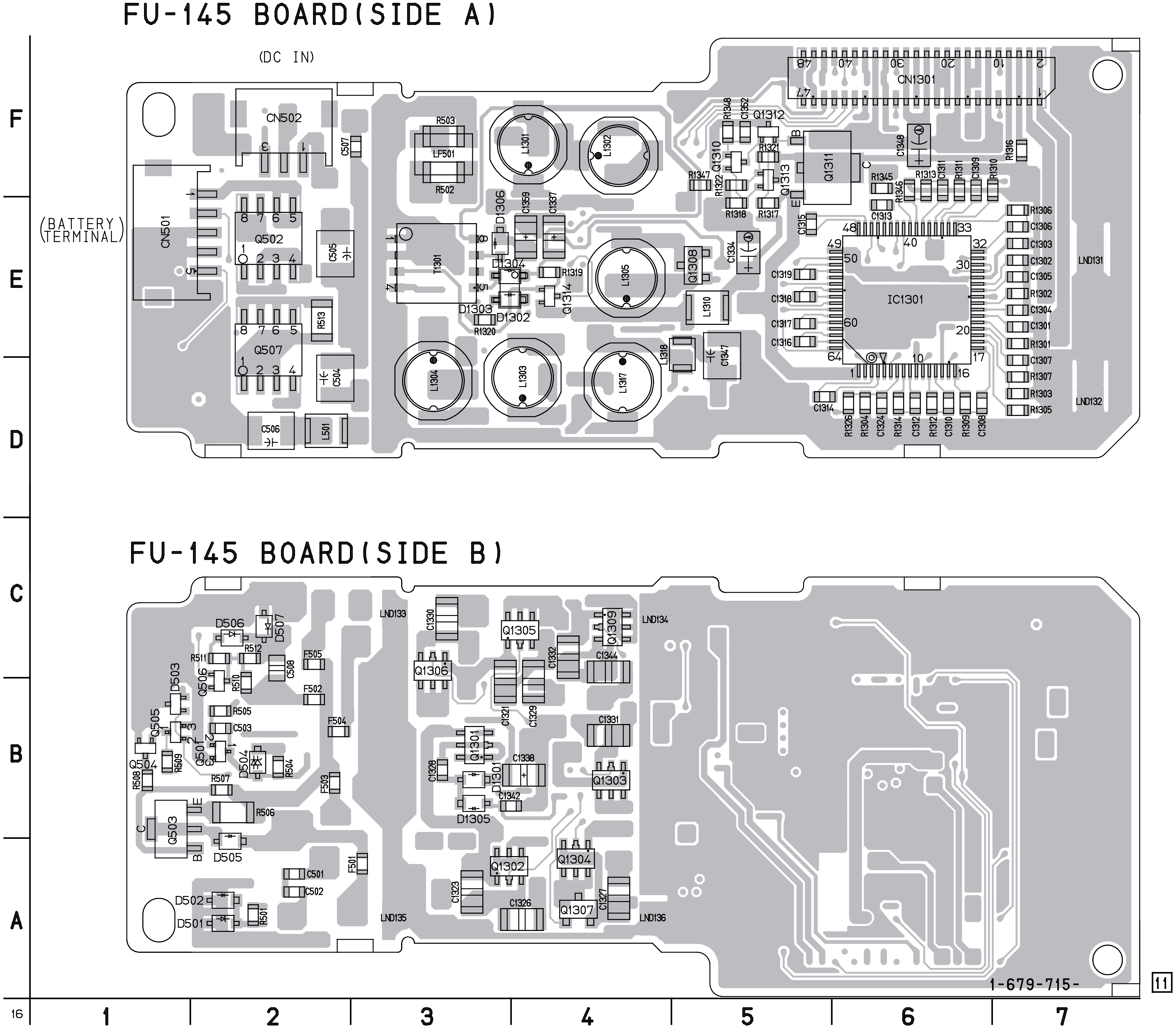

IO-68 BOARD
AV IN/OUT
-REF.NO.:10000 SERIES-
XX MARK:NO MOUNT
AUDIO
R
L (MOMO)
RFU DC OUT
VIDEO OUT
J102
J103
S VIDEO OUT
J101
S VIDEO IN
CN105 6P
CN103 50P
CN002 50P
CN001 50P
1 LANC_SIG
2 XVTR_MODE_SW
3 REG_GND
4 XLANC_JACK_IN
5 REG_GND
6 LANC_DC
7 LCH_OUT_DET
8 RCH_OUT_DET
9 REG_GND
10 AUDIO_R_OUT
11 RF_DC_OUT
12 AUDIO_L_OUT
13 VIDEO_OUT_GND
14 V_JACK_OUT_DET
15 S_C_GND
16 VIDEO_OUT
17 S_Y_GND
18 S_C_OUT
19 REG_GND
20 S_Y_OUT
21 EVER_3.0V
22 XS_JACK_OUT_DET
23 KEY_AD5
24 XIR_LED_ON
25 DIAL_B
26 DIAL_A
27 S_Y_GND
28 XS_JACK_IN_DET
29 S_C_GND
30 S_Y_IN
31 REG_GND
32 S_C_IN
33 VIDEO_GND
34 AV_JACK_IN_DET
35 REG_GND
36 VIDEO_IN
37 AUDIO_GND
38 AUDIO_L_IN
39 XHP_SENS
40 AUDIO_R_IN
41 HP_GND
42 HP_R
43 XCHARGE_LED
44 HP_L
45 XSIRCS_LED
46 XPOWER_LED
47 REG_GND
48 A_4.75V
49 REG_GND
50 REG_GND
TO VC-250(14/16) CN922
(SEE PAGE 4-38)
S105 VOLUME-
S104 VOLUME+
S103 SEL/PUSH EXEC
S102 MENU
S101 SUPER LASER LINK
D109 TLSU1002(TPX1,SONY)
D113 MA111-TX
LND101
FP-246 BOARD
REMOTE COMMANDER RECEIVER
-REF.NO.:20000 SERIES-
NO MARK:REC/PB MODE
J001 AVDIO/VIDEO IN
J002 (HEADPHONES)
CN001 16P
CN104 16P
1 AUDIO_L_IN
2 VIDEO_IN
3 AV_GND
4 AV_JACK_DET
5 HP_L
6 EVER_3.0V
7 HP_R
8 XPOWER_LED
9 XHP_SENS
10 XCHARGE_LED
11 HP_GND
12 A_4.75V
13 AUDIO_R_IN
14 XSIRCS_SIG
15 AV_GND
16 GND
(POWER)
(CHARGE)
D001 CL-165Y/PG-D-T
IC001 RS-70-TU
IC001
REMOTE COMMANDER RECEIVER
CH GND
LND001
FP-247
FLEXIBLE
FP-575 BOARD
LANC JACK
S001 POWER
OFF ON
J001 LANC
LND001 CH GND
1 XVTR_MODE_SW
2 LANC_SIG
3 REG_GND
4 REG_GND
5 REG_GND
6 LANC_DC
SIGNAL PATH
VIDEO SIGNAL
CHROMA
Y
Y/CHROMA
AUDIO SIGNAL
REC
PB

Service of the FP-246 flexible board is based on the replacement of the entire board except J001,J002.
So that this PRINTED WIRING BOARD is omitted.

FP-247 flexible board is ablock.
So that this PRINTED WIRING BOARD is omitted.

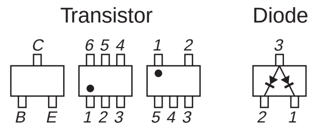
FU-145 (DC/DC CONVERTER) PRINTED WIRING BOARD

— Ref. No. FU-145 Board; 10,000 Series —

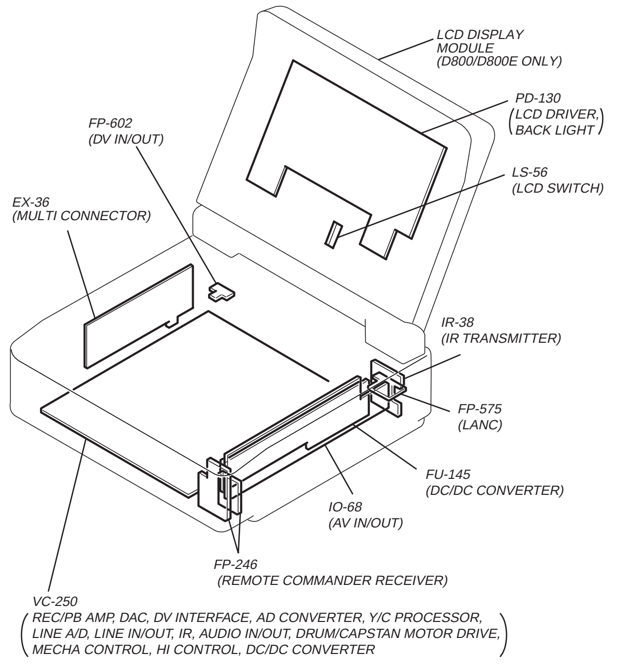

FU-145 BOARD(SIDE A)
(DC IN)
(BATTERY TERMINAL)
CN502
CN501
CN1301
Q502
Q507
T1301
IC1301
L1301
L1302
L1303
L1304
L1305
L1317
L1310
L1318
LF501
L501
Q1308
Q1310
Q1311
Q1312
Q1313
Q1314
D1302
D1303
D1304
D1306
LND131
LND132
FU-145 BOARD(SIDE B)
Q1301
Q1302
Q1303
Q1304
Q1305
Q1306
Q1307
Q1309
Q503
Q504
Q505
Q506
Q501
D501
D502
D503
D504
D505
D506
D507
D1301
D1305
LND133
LND134
LND135
LND136
1-679-715-
11
F
E
D
C
B
A
16
1
2
3
4
5
6
7

For printed wiring board

- Refer to page 4-72 for parts location.
- FU-145 board consists of multiple layers. However, only the sides (layers) A and B are shown.
- Chip parts

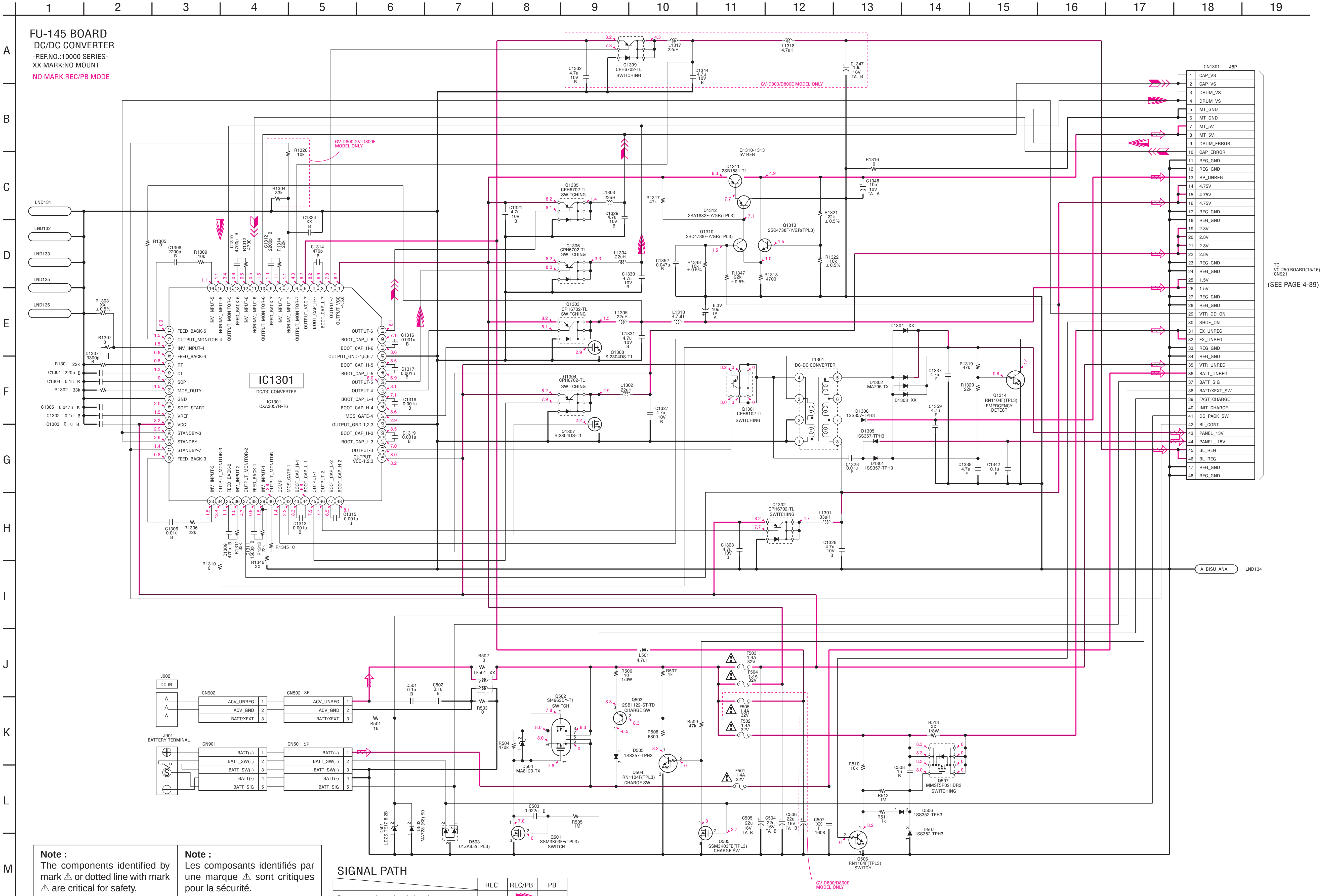

Transistor
Diode
C
B E
6 5 4
1 2 3
1 2
5 4 3
3
2 1

There are few cases that the part printed on this diagram isn't mounted in this model.


LCD DISPLAY MODULE (D800/D800E ONLY)
PD-130 (LCD DRIVER, BACK LIGHT)
FP-602 (DV IN/OUT)
LS-56 (LCD SWITCH)
EX-36 (MULTI CONNECTOR)
IR-38 (IR TRANSMITTER)
FP-575 (LANC)
FU-145 (DC/DC CONVERTER)
IO-68 (AV IN/OUT)
FP-246 (REMOTE COMMANDER RECEIVER)
VC-250 (REC/PB AMP, DAC, DV INTERFACE, AD CONVERTER, Y/C PROCESSOR, LINE A/D, LINE IN/OUT, IR, AUDIO IN/OUT, DRUM/CAPSTAN MOTOR DRIVE, MECHA CONTROL, HI CONTROL, DC/DC CONVERTER)

For Schematic Diagram

- Refer to page 4-7 for printed wiring board.


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
A
B
C
D
E
F
G
H
I
J
K
L
M
N
FU-145 BOARD
DC/DC CONVERTER
-REF.NO.:10000 SERIES-
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
IC1301
DC/DC CONVERTER
IC1301
CXA3057R-T6
LND131
LND132
LND133
LND135
LND136
LND134
A_BISU_ANA
CN1301 48P
CAP_VS
DRUM_VS
MT_GND
MT_5V
DRUM_ERROR
CAP_ERROR
REG_GND
RP_UNREG
4.75V
2.8V
1.5V
VTR_DD_ON
SHOE_ON
EX_UNREG
VTR_UNREG
BATT_UNREG
BATT_SIG
BATT/XEXT_SW
FAST_CHARGE
INIT_CHARGE
DC_PACK_SW
BL_CONT
PANEL_13V
PANEL_-15V
BL_REG
TO
VC-250 BOARD(15/16)
CN921
(SEE PAGE 4-39)
Q1309
CPH6702-TL
SWITCHING
GV-D800/D800E MODEL ONLY
GV-D800,GV-D800E
MODEL ONLY
Q1310-1313
5V REG
Q1311
2SB1581-T1
Q1312
2SA1832F-Y/GR(TPL3)
Q1310
2SC4738F-Y/GR(TPL3)
Q1313
2SC4738F-Y/GR(TPL3)
Q1305
CPH6702-TL
SWITCHING
Q1306
CPH6702-TL
SWITCHING
Q1303
CPH6702-TL
SWITCHING
Q1308
SI2304DS-T1
Q1304
CPH6702-TL
SWITCHING
Q1307
SI2304DS-T1
T1301
DC-DC CONVERTER
Q1301
CPH6102-TL
SWITCHING
D1302
MA796-TX
D1303 XX
D1304 XX
Q1314
RN1104F(TPL3)
EMERGENCY
DETECT
D1306
1SS357-TPH3
D1305
1SS357-TPH3
D1301
1SS357-TPH3
Q1302
CPH6702-TL
SWITCHING
L1301
33uH
FEED_BACK-5
OUTPUT_MONITOR-4
INV_INPUT-4
FEED_BACK-4
RT
CT
SCP
MOS_DUTY
GND
SOFT_START
VREF
VCC
STANDBY-3
STANDBY
STANDBY-7
FEED_BACK-3
OUTPUT-6
BOOT_CAP_L-6
BOOT_CAP_H-6
OUTPUT_GND-4,5,6,7
BOOT_CAP_H-5
BOOT_CAP_L-5
OUTPUT-5
OUTPUT-4
BOOT_CAP_L-4
BOOT_CAP_H-4
MOS_GATE-4
OUTPUT_GND-1,2,3
BOOT_CAP_H-3
BOOT_CAP_L-3
OUTPUT-3
OUTPUT VCC-1,2,3
J902
DC IN
CN902
CN502 3P
ACV_UNREG
ACV_GND
BATT/XEXT
J901
BATTERY TERMINAL
CN901
CN501 5P
BATT(+)
BATT_SW(+)
BATT_SW(-)
BATT(-)
BATT_SIG
LF501 XX
L501
4.7uH
Q502
SI4963DY-T1
SWITCH
Q503
2SB1122-ST-TD
CHARGE SW
D505
1SS357-TPH3
Q504
RN1104F(TPL3)
CHARGE SW
D504
MA8120-TX
F503
1.4A
32V
F504
1.4A
32V
F505
1.4A
32V
F502
1.4A
32V
F501
1.4A
32V
Q507
MMSF5P02HDR2
SWITCHING
D501
UDZS-TE17-8.2B
D502
MA729-(K8).S0
D503
01ZA8.2(TPL3)
Q501
SSM3K03FE(TPL3)
SWITCH
Q505
SSM3K03FE(TPL3)
CHARGE SW
Q506
RN1104F(TPL3)
SWITCH
D506
1SS352-TPH3
D507
1SS352-TPH3
GV-D800/D800E
MODEL ONLY

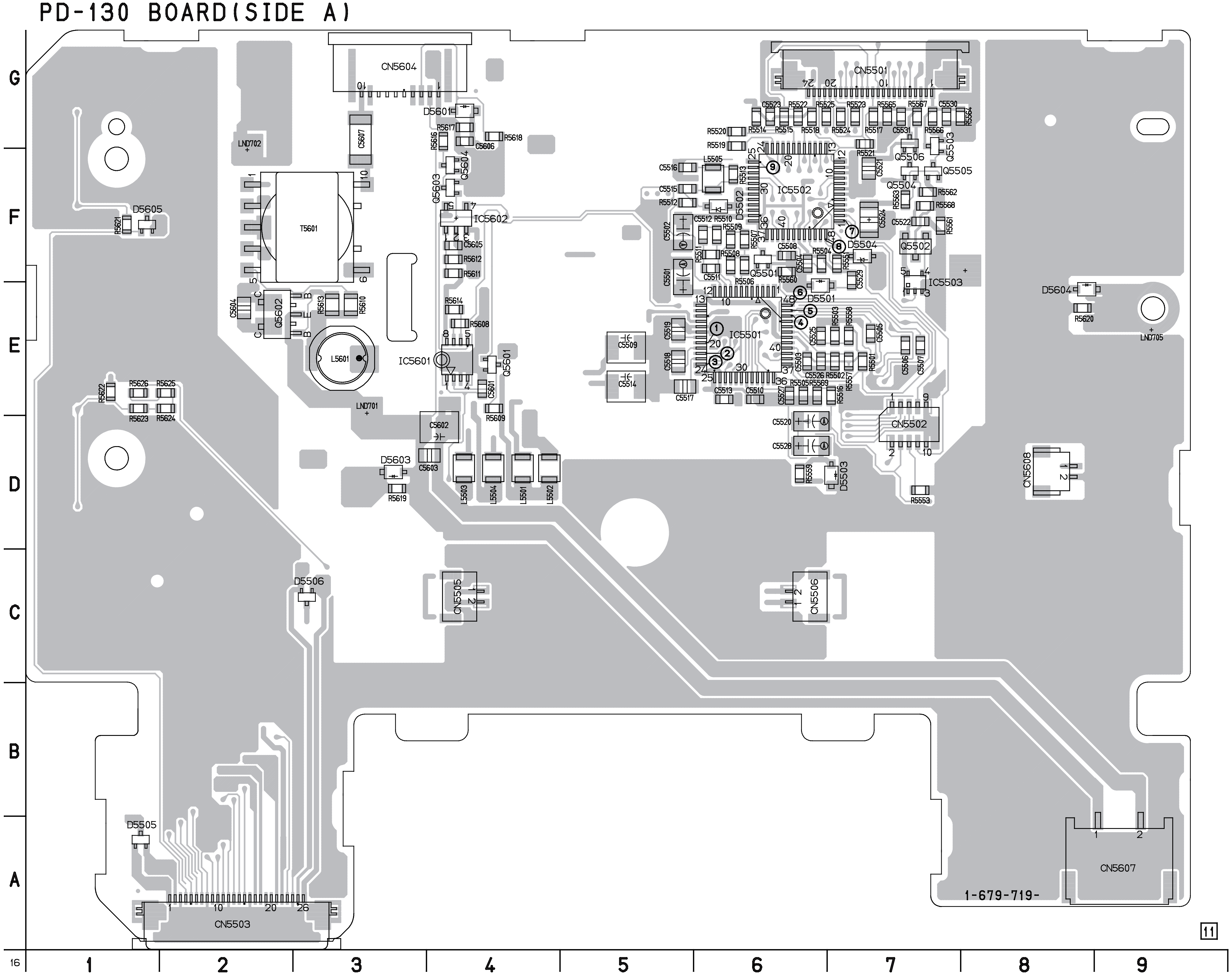
Note :	**Note :**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

SIGNAL PATH

	REC	REC/PB	PB
Drum servo (speed and phase)		➡	
Capstan servo (speed and phase)		⇛	

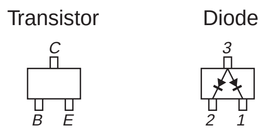
PD-130 (LCD DRIVER, BACK-LIGHT) PRINTED WIRING BOARD

— Ref. No. PD-130 Board; 10,000 Series —

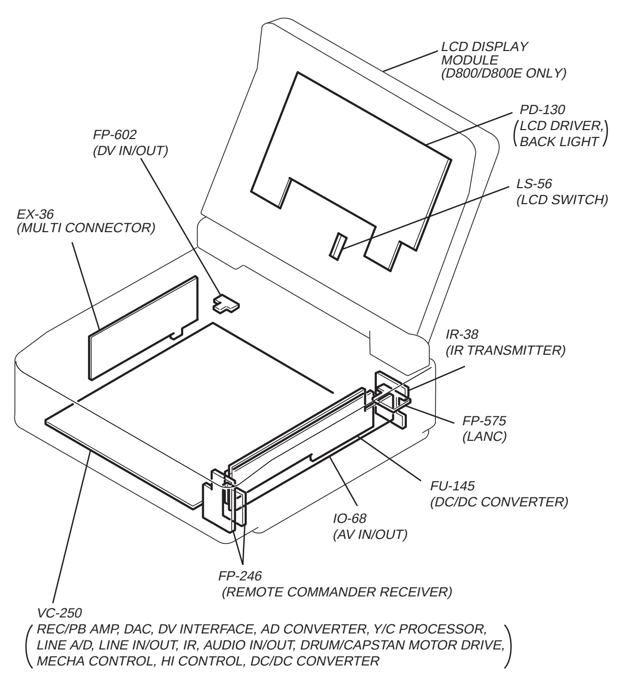

PD-130 BOARD(SIDE A)
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
16
11
CN5604
CN5501
CN5502
CN5503
CN5505
CN5506
CN5607
CN5608
T5601
L5601
IC5501
IC5502
IC5503
IC5601
IC5602
Q5501
Q5502
Q5503
Q5504
Q5505
Q5506
Q5601
Q5602
Q5603
Q5604
D5501
D5502
D5503
D5504
D5505
D5506
D5601
D5603
D5604
D5605
L5501
L5502
L5503
L5504
L5505
C5602
C5603
C5604
C5605
C5606
C5607
C5509
C5514
C5520
C5528
LND701
LND702
LND705
1-679-719-

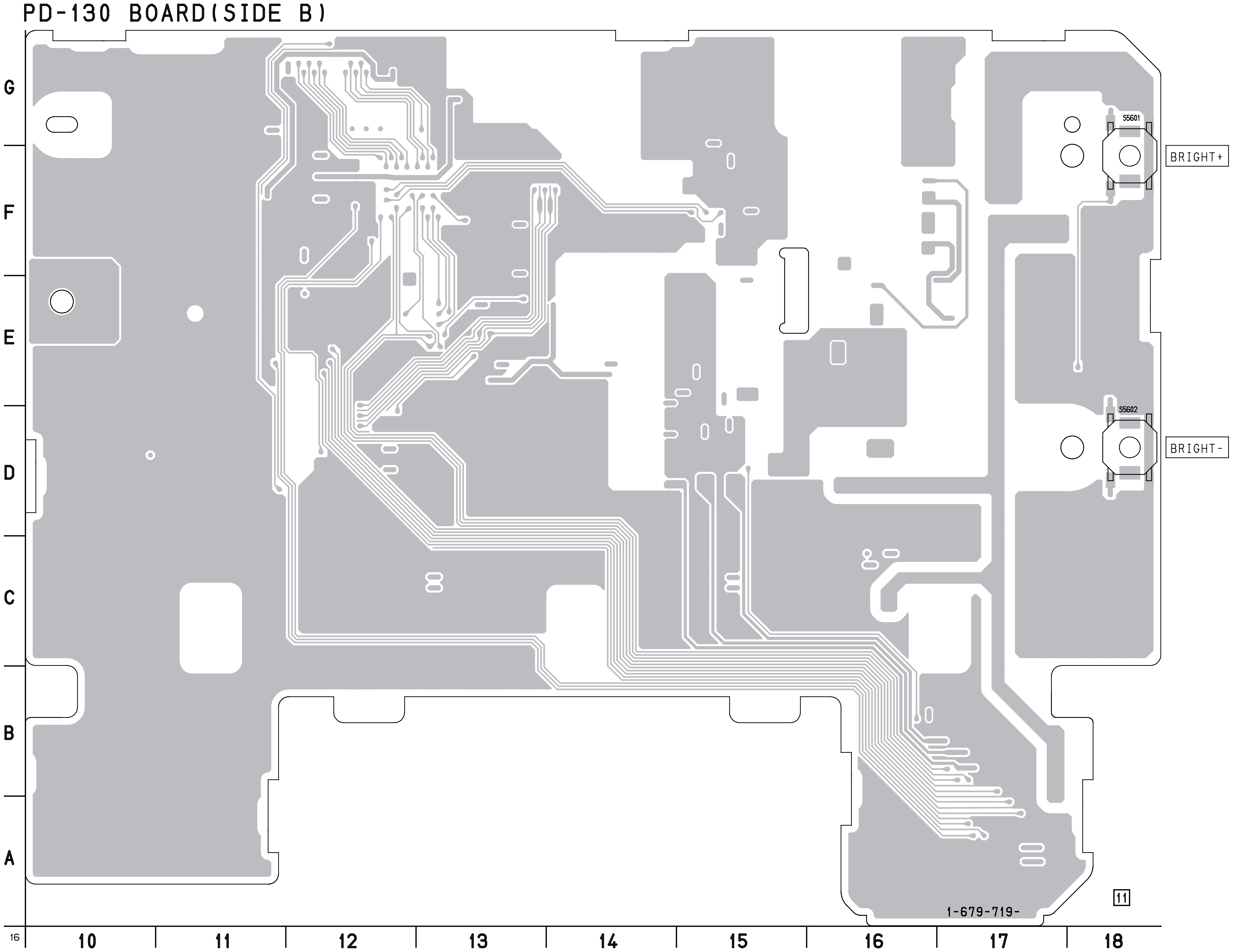
For printed wiring board

- Refer to page 4-73 for parts location.
- PD-130 board consists of multiple layers. However, only the sides (layers) A and B are shown.
- Chip parts


Transistor
C
B
E
Diode
3
2
1

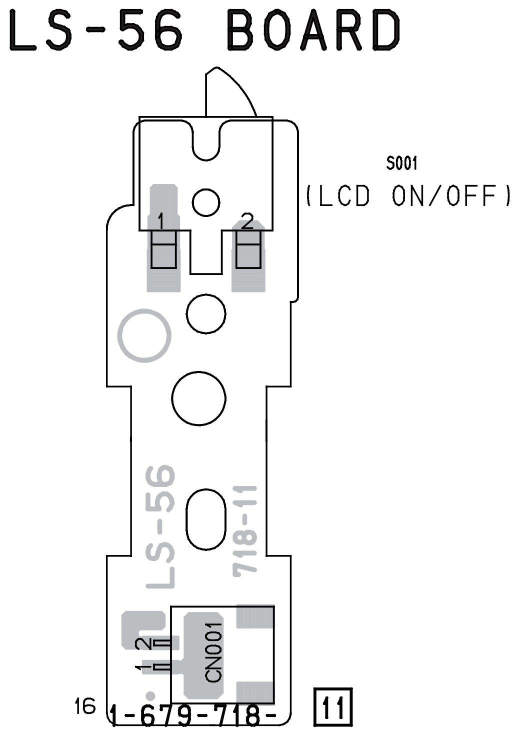
There are few cases that the part printed on this diagram isn't mounted in this model.


LCD DISPLAY MODULE (D800/D800E ONLY)
PD-130 (LCD DRIVER, BACK LIGHT)
FP-602 (DV IN/OUT)
LS-56 (LCD SWITCH)
EX-36 (MULTI CONNECTOR)
IR-38 (IR TRANSMITTER)
FP-575 (LANC)
FU-145 (DC/DC CONVERTER)
IO-68 (AV IN/OUT)
FP-246 (REMOTE COMMANDER RECEIVER)
VC-250 (REC/PB AMP, DAC, DV INTERFACE, AD CONVERTER, Y/C PROCESSOR, LINE A/D, LINE IN/OUT, IR, AUDIO IN/OUT, DRUM/CAPSTAN MOTOR DRIVE, MECHA CONTROL, HI CONTROL, DC/DC CONVERTER)

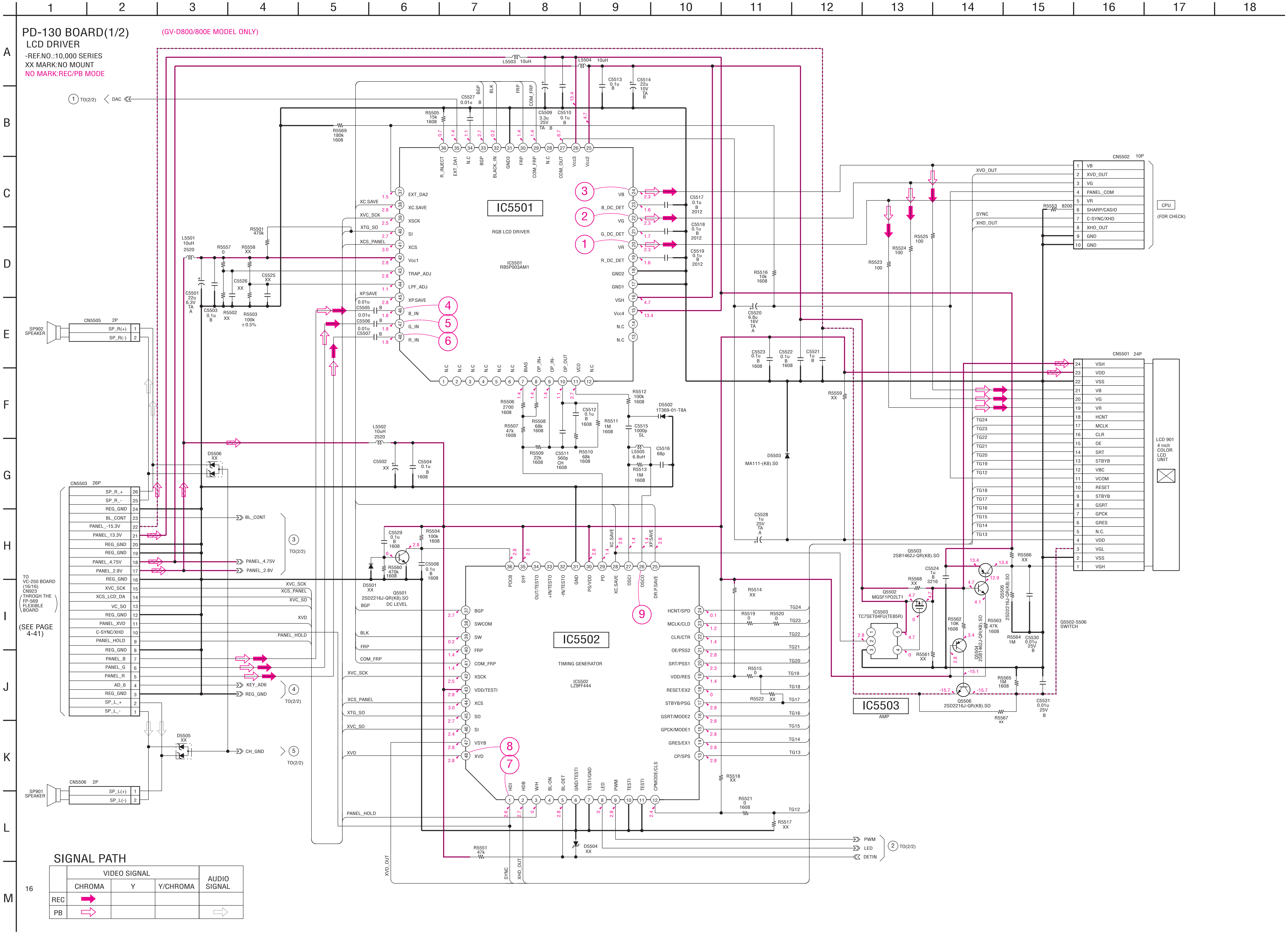

PD-130 BOARD(SIDE B)
G
F
E
D
C
B
A
S5601
BRIGHT+
S5602
BRIGHT-
1-679-719-
11
16
10
11
12
13
14
15
16
17
18

LS-56 (LCD SWITCH) PRINTED WIRING BOARD

— Ref. No. LS-56 Board; 20,000 Series —


LS-56 BOARD
S001
(LCD ON/OFF)
1
2
LS-56
718-11
CN001
2
1
16
1-679-718-
11

For Schematic Diagram
- Refer to page 4-51 for printed wiring board.
- Refer to page 4-69 for waveforms.

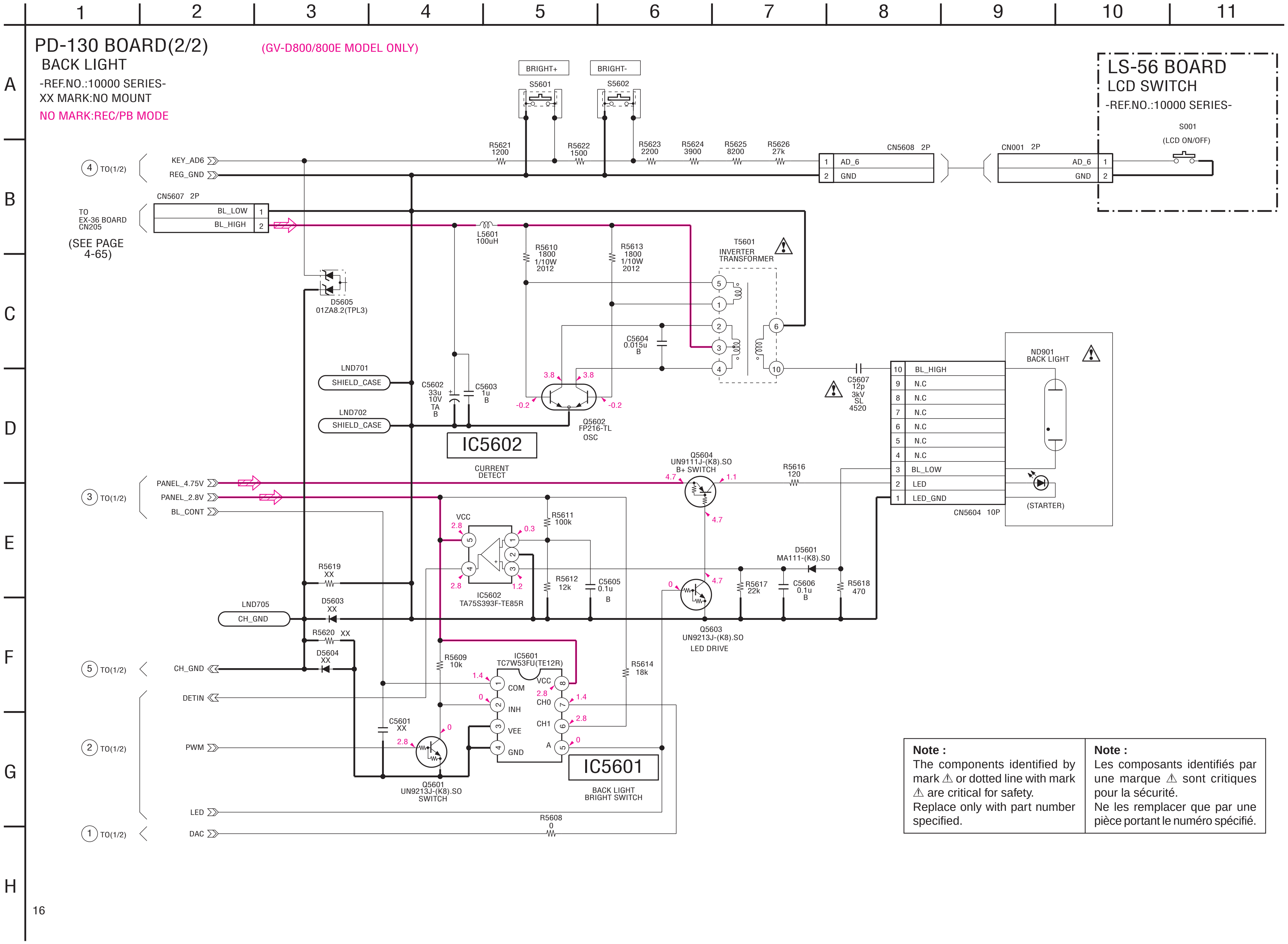

PD-130 BOARD(1/2)
LCD DRIVER
-REF.NO.:10,000 SERIES
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
(GV-D800/800E MODEL ONLY)
IC5501
RGB LCD DRIVER
IC5501 RB5P003AM1
IC5502
TIMING GENERATOR
IC5502 LZ9FF444
IC5503
AMP
IC5503 TC7SET04FU(TE85R)
Q5501 2SD2216J-QR(K8).SO DC LEVEL
Q5502 MGSF1P02LT1
Q5503 2SB1462J-QR(K8).SO
Q5506 2SD2216J-QR(K8).SO
Q5502-5506 SWITCH
D5502 1T369-01-T8A
D5503 MA111-(K8).SO
CN5501 24P
CN5502 10P
CN5503 26P
CN5505 2P
CN5506 2P
SP901 SPEAKER
SP902 SPEAKER
LCD 901 4 inch COLOR LCD UNIT
CPU
(FOR CHECK)
TO VC-250 BOARD (16/16) CN923 (THROUGH THE FP-569 FLEXIBLE BOARD)
(SEE PAGE 4-41)
TO(2/2)
DAC
BL_CONT
PANEL_4.75V
PANEL_2.8V
KEY_AD6
REG_GND
CH_GND
PWM
LED
DETIN
16

SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC	➡			
PB	⇨			⇨

LCD DRIVER, BACK-LIGHT
PD-130 (1/2)

For Schematic Diagram
- Refer to page 4-51 for PD-130 printed wiring board.
- Refer to page 4-54 for LS-56 printed wiring board.

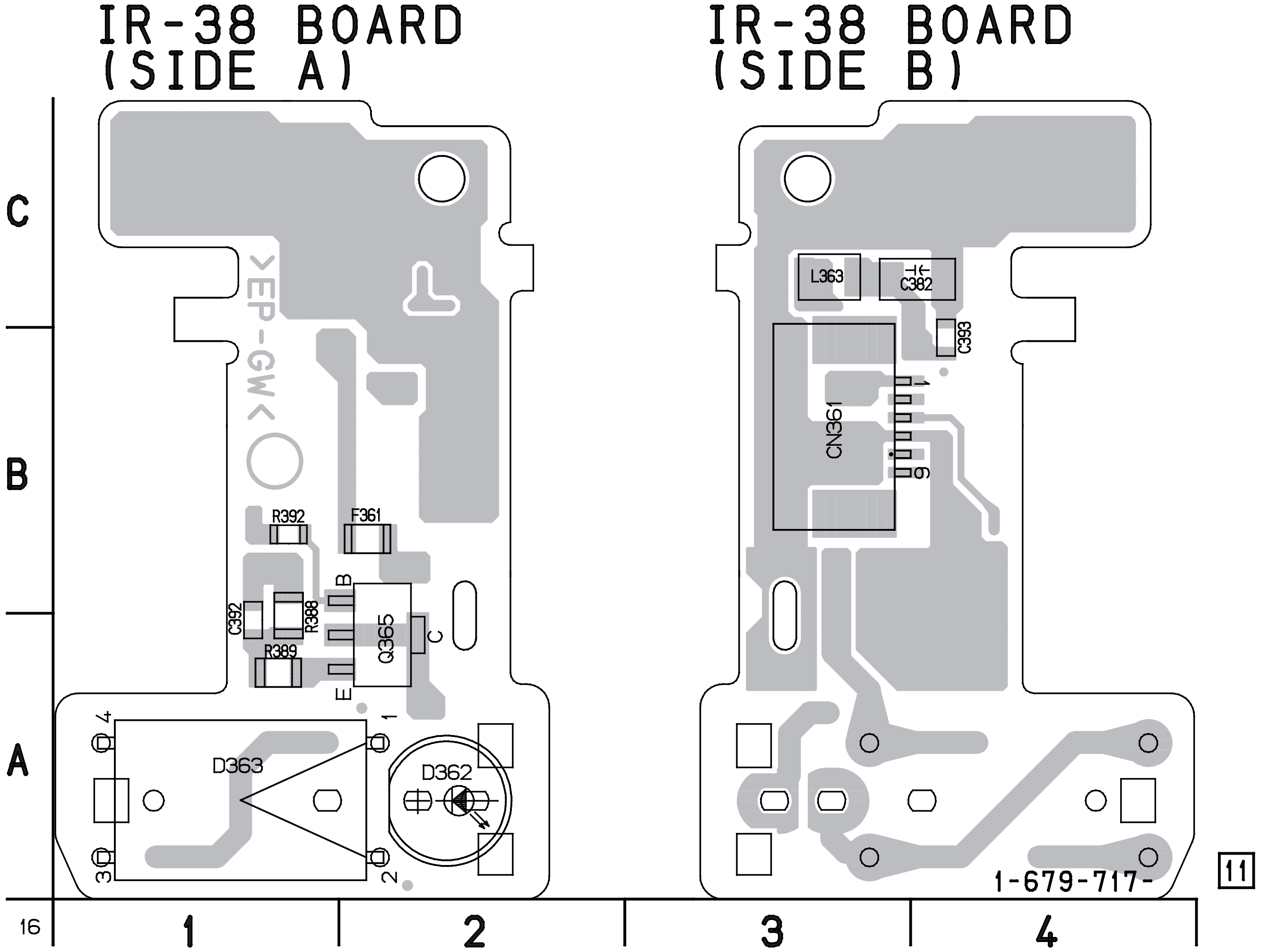

1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G
H
PD-130 BOARD(2/2)
(GV-D800/800E MODEL ONLY)
BACK LIGHT
-REF.NO.:10000 SERIES-
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
LS-56 BOARD
LCD SWITCH
-REF.NO.:10000 SERIES-
S001
(LCD ON/OFF)
CN001 2P
AD_6
GND
CN5608 2P
BRIGHT+
BRIGHT-
S5601
S5602
R5621 1200
R5622 1500
R5623 2200
R5624 3900
R5625 8200
R5626 27k
KEY_AD6
REG_GND
TO(1/2)
CN5607 2P
BL_LOW
BL_HIGH
TO EX-36 BOARD CN205
(SEE PAGE 4-65)
L5601 100uH
R5610 1800 1/10W 2012
R5613 1800 1/10W 2012
T5601 INVERTER TRANSFORMER
D5605 01ZA8.2(TPL3)
C5604 0.015u B
LND701
SHIELD_CASE
LND702
C5602 33u 10V TA B
C5603 1u B
3.8
-0.2
Q5602 FP216-TL OSC
IC5602
CURRENT DETECT
C5607 12p 3kV SL 4520
ND901 BACK LIGHT
N.C
LED
LED_GND
CN5604 10P
(STARTER)
Q5604 UN9111J-(K8).SO B+ SWITCH
4.7
1.1
R5616 120
PANEL_4.75V
PANEL_2.8V
BL_CONT
VCC
2.8
0.3
1.2
R5611 100k
R5612 12k
C5605 0.1u B
IC5602 TA75S393F-TE85R
R5619 XX
D5603 XX
LND705
CH_GND
R5620 XX
D5604 XX
D5601 MA111-(K8).SO
R5617 22k
C5606 0.1u B
R5618 470
Q5603 UN9213J-(K8).SO LED DRIVE
0
R5609 10k
IC5601 TC7WS3FU(TE12R)
COM
INH
VEE
GND
CH0
CH1
A
1.4
R5614 18k
DETIN
PWM
C5601 XX
Q5601 UN9213J-(K8).SO SWITCH
IC5601
BACK LIGHT BRIGHT SWITCH
LED
DAC
R5608 0
16

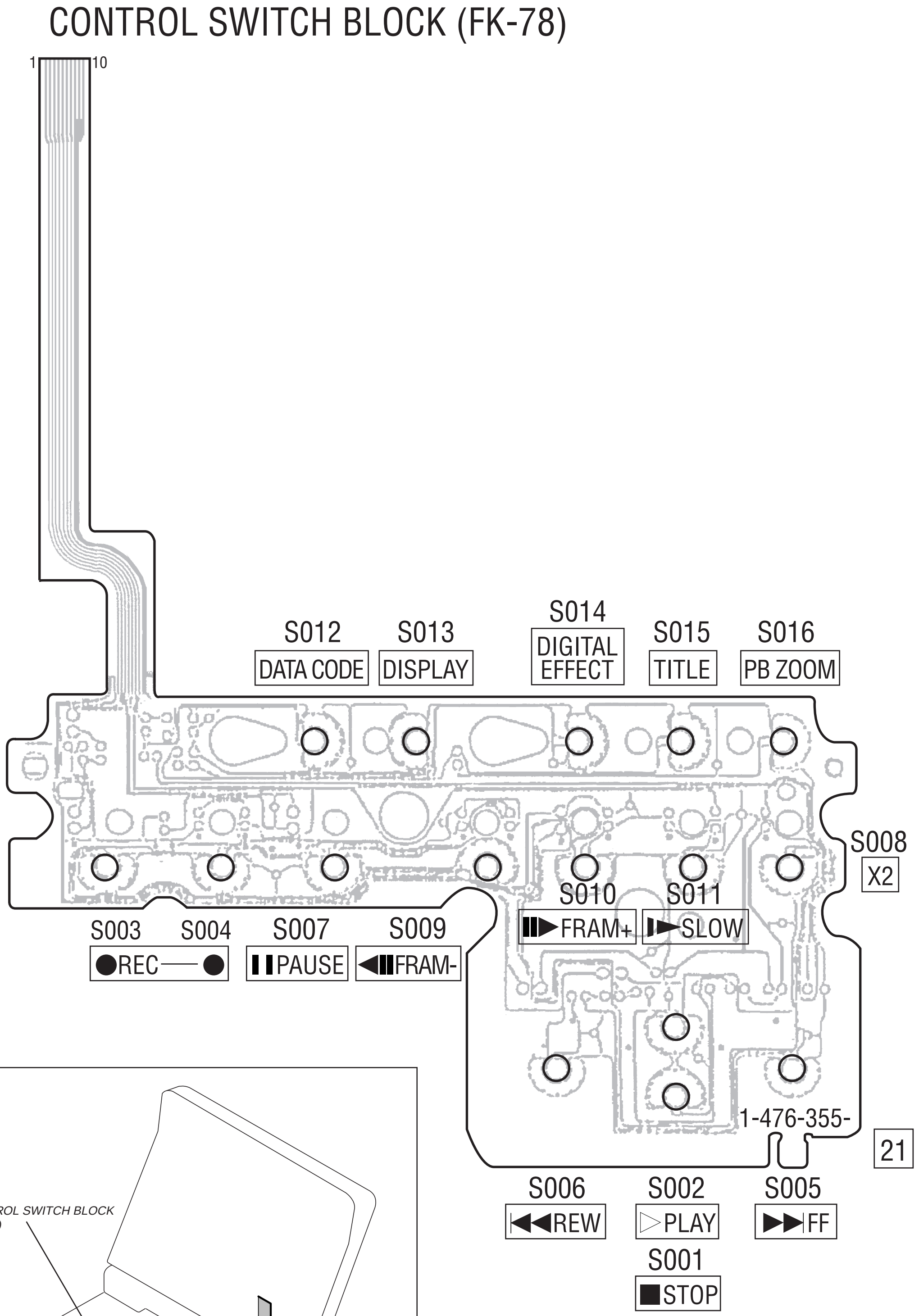
Note :	**Note :**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

IR-38 (IR TRANSMITTER), CONTROL SWITCH BLOCK (FK-78) PRINTED WIRING BOARDS

— Ref. No. IR-38 Board; 10,000 Series, Control switch block (FK-78) Board; 40,000 Series —

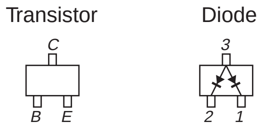
- Refer to page 4-28 for IR-38 schematic diagram.


IR-38 BOARD (SIDE A)
IR-38 BOARD (SIDE B)
C
B
A
>EP-GW<
R392
F361
C392
R388
R389
Q365
B
C
E
D363
D362
4
3
1
2
L363
C382
C393
CN361
1
6
1-679-717-
11
16
1
2
3
4

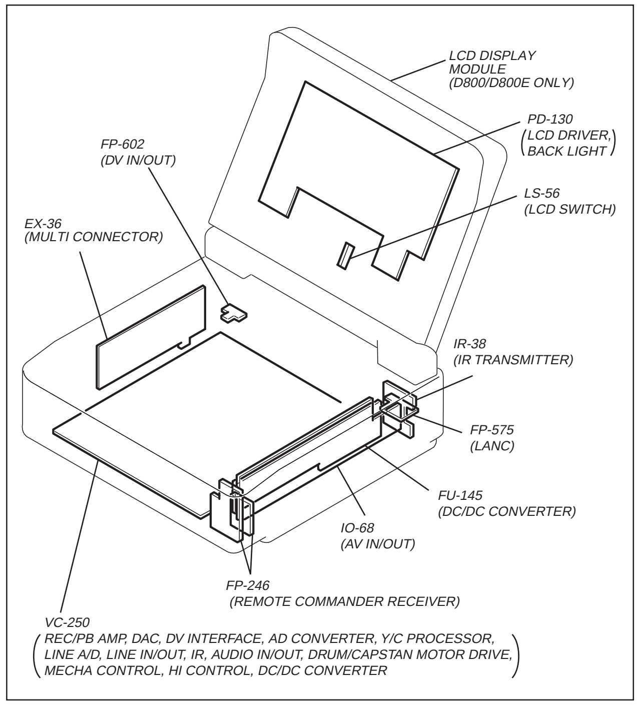

CONTROL SWITCH BLOCK (FK-78)
1
10
S012 DATA CODE
S013 DISPLAY
S014 DIGITAL EFFECT
S015 TITLE
S016 PB ZOOM
S008 X2
S010 FRAM+
S011 SLOW
S003 S004 ●REC—●
S007 ❚❚PAUSE
S009 FRAM-
1-476-355-
21
S006 REW
S002 ▷PLAY
S005 FF
S001 ■STOP

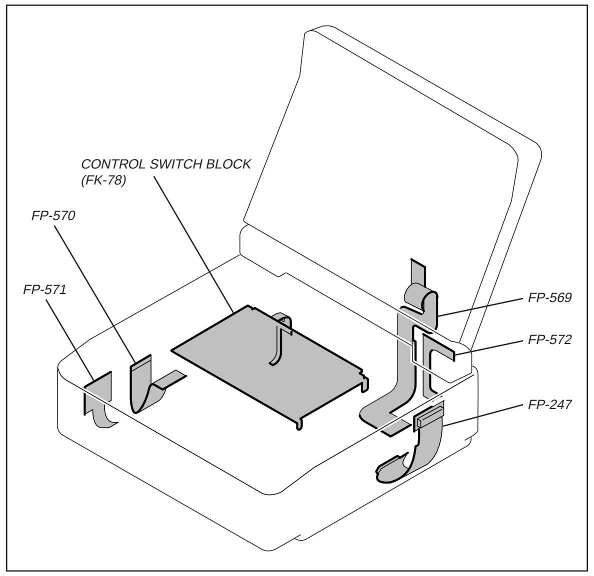
For printed wiring board

- Refer to page 4-73 for parts location.
- IR-38 board consists of multiple layers. However, only the sides (layers) A and B are shown.
- Chip parts


Transistor
C
B
E
Diode
3
2
1

There are few cases that the part printed on this diagram isn't mounted in this model.

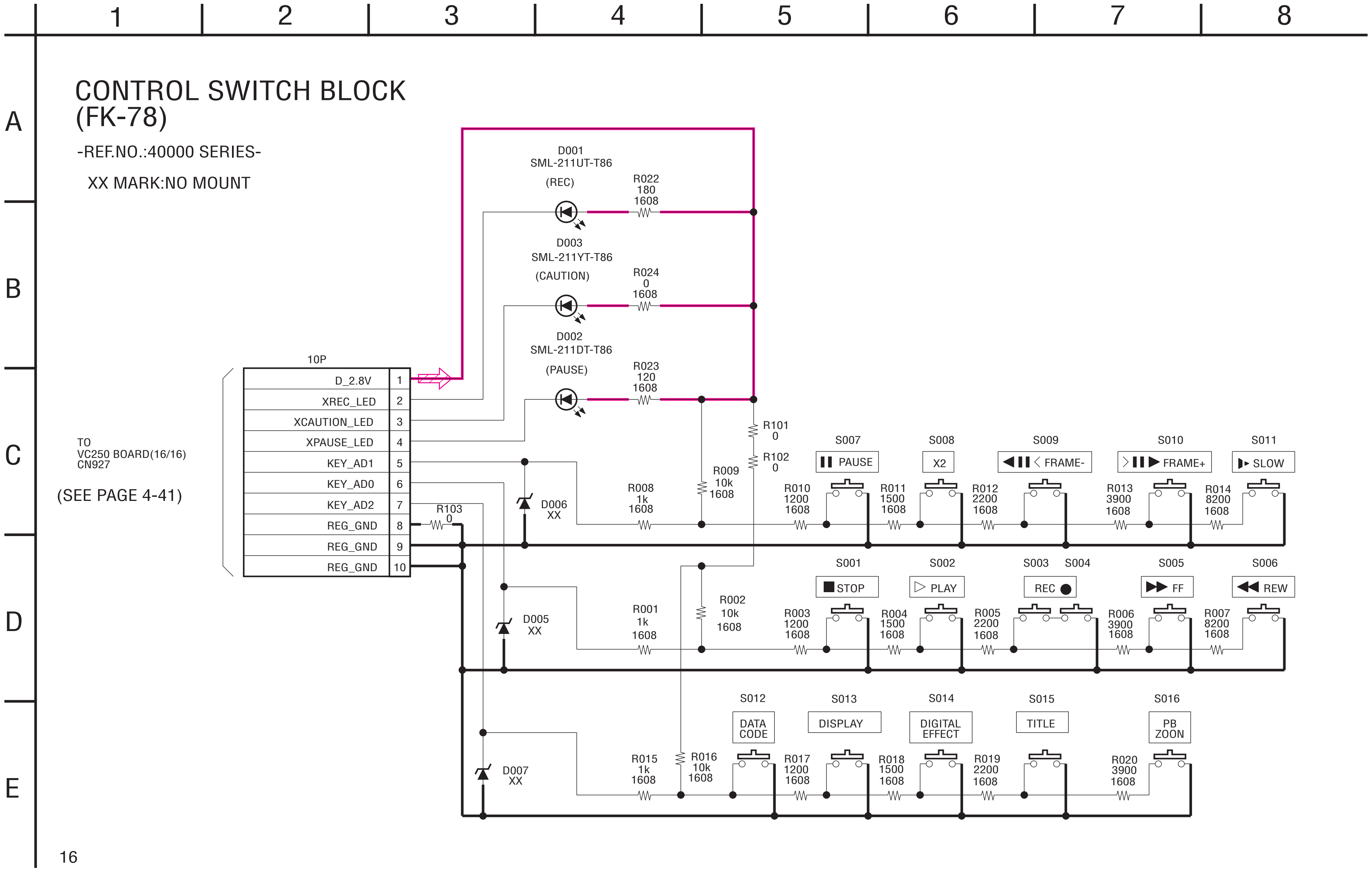

LCD DISPLAY MODULE (D800/D800E ONLY)
PD-130 (LCD DRIVER, BACK LIGHT)
LS-56 (LCD SWITCH)
FP-602 (DV IN/OUT)
EX-36 (MULTI CONNECTOR)
IR-38 (IR TRANSMITTER)
FP-575 (LANC)
FU-145 (DC/DC CONVERTER)
IO-68 (AV IN/OUT)
FP-246 (REMOTE COMMANDER RECEIVER)
VC-250 (REC/PB AMP, DAC, DV INTERFACE, AD CONVERTER, Y/C PROCESSOR, LINE A/D, LINE IN/OUT, IR, AUDIO IN/OUT, DRUM/CAPSTAN MOTOR DRIVE, MECHA CONTROL, HI CONTROL, DC/DC CONVERTER)


CONTROL SWITCH BLOCK (FK-78)
FP-570
FP-571
FP-569
FP-572
FP-247

CONTROL SWITCH BLOCK (FK-78)

-REF.NO.:40000 SERIES-

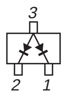
XX MARK:NO MOUNT


1
2
3
4
5
6
7
8
A
B
C
D
E
TO
VC250 BOARD(16/16)
CN927
(SEE PAGE 4-41)
10P
D_2.8V 1
XREC_LED 2
XCAUTION_LED 3
XPAUSE_LED 4
KEY_AD1 5
KEY_AD0 6
KEY_AD2 7
REG_GND 8
REG_GND 9
REG_GND 10
D001
SML-211UT-T86
(REC)
R022
180
1608
D003
SML-211YT-T86
(CAUTION)
R024
0
1608
D002
SML-211DT-T86
(PAUSE)
R023
120
1608
R101
0
R102
0
R103
0
D006
XX
D005
XX
D007
XX
R008
1k
1608
R009
10k
1608
R001
1k
1608
R002
10k
1608
R015
1k
1608
R016
10k
1608
S007
PAUSE
S008
X2
S009
FRAME-
S010
FRAME+
S011
SLOW
R010
1200
1608
R011
1500
1608
R012
2200
1608
R013
3900
1608
R014
8200
1608
S001
STOP
S002
PLAY
S003
S004
REC
S005
FF
S006
REW
R003
1200
1608
R004
1500
1608
R005
2200
1608
R006
3900
1608
R007
8200
1608
S012
DATA
CODE
S013
DISPLAY
S014
DIGITAL
EFFECT
S015
TITLE
S016
PB
ZOON
R017
1200
1608
R018
1500
1608
R019
2200
1608
R020
3900
1608
16

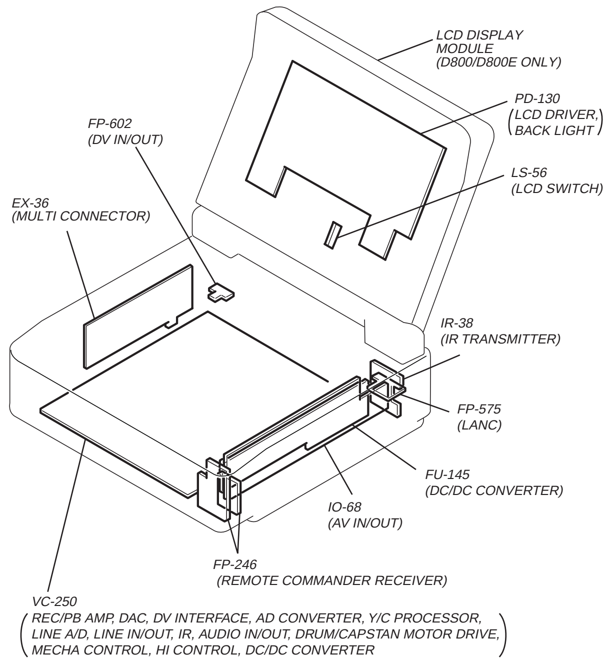
For printed wiring board

- Refer to page 4-73 for parts location.
- EX-36 board consists of multiple layers. However, only the sides (layers) A and B are shown.
- Chip parts

Diode

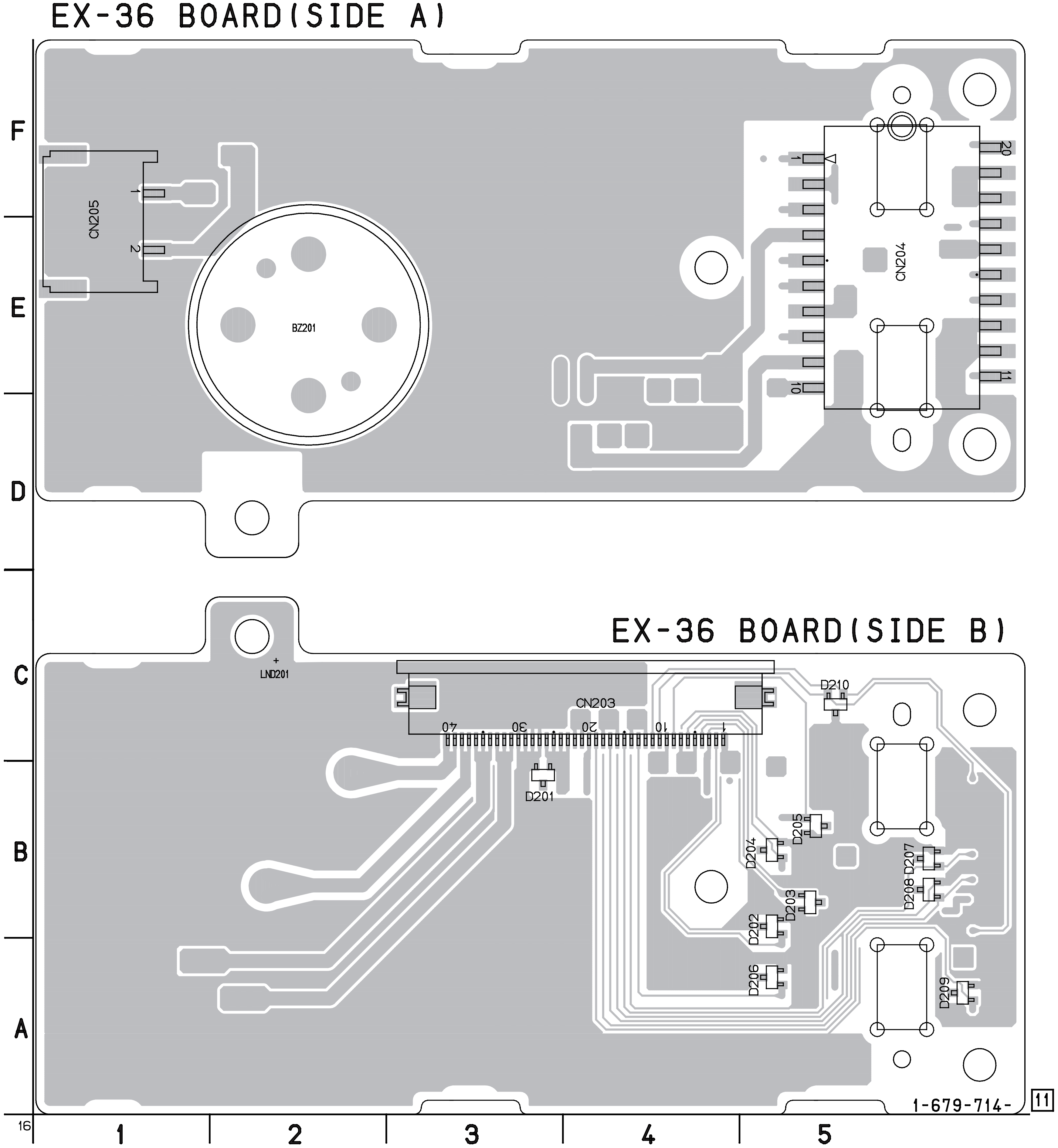


There are few cases that the part printed on this diagram isn’t mounted in this model.


LCD DISPLAY MODULE (D800/D800E ONLY)
PD-130 (LCD DRIVER, BACK LIGHT)
FP-602 (DV IN/OUT)
LS-56 (LCD SWITCH)
EX-36 (MULTI CONNECTOR)
IR-38 (IR TRANSMITTER)
FP-575 (LANC)
FU-145 (DC/DC CONVERTER)
IO-68 (AV IN/OUT)
FP-246 (REMOTE COMMANDER RECEIVER)
VC-250 (REC/PB AMP, DAC, DV INTERFACE, AD CONVERTER, Y/C PROCESSOR, LINE A/D, LINE IN/OUT, IR, AUDIO IN/OUT, DRUM/CAPSTAN MOTOR DRIVE, MECHA CONTROL, HI CONTROL, DC/DC CONVERTER)

EX-36 (MULTI CONNECTOR) PRINTED WIRING BOARD

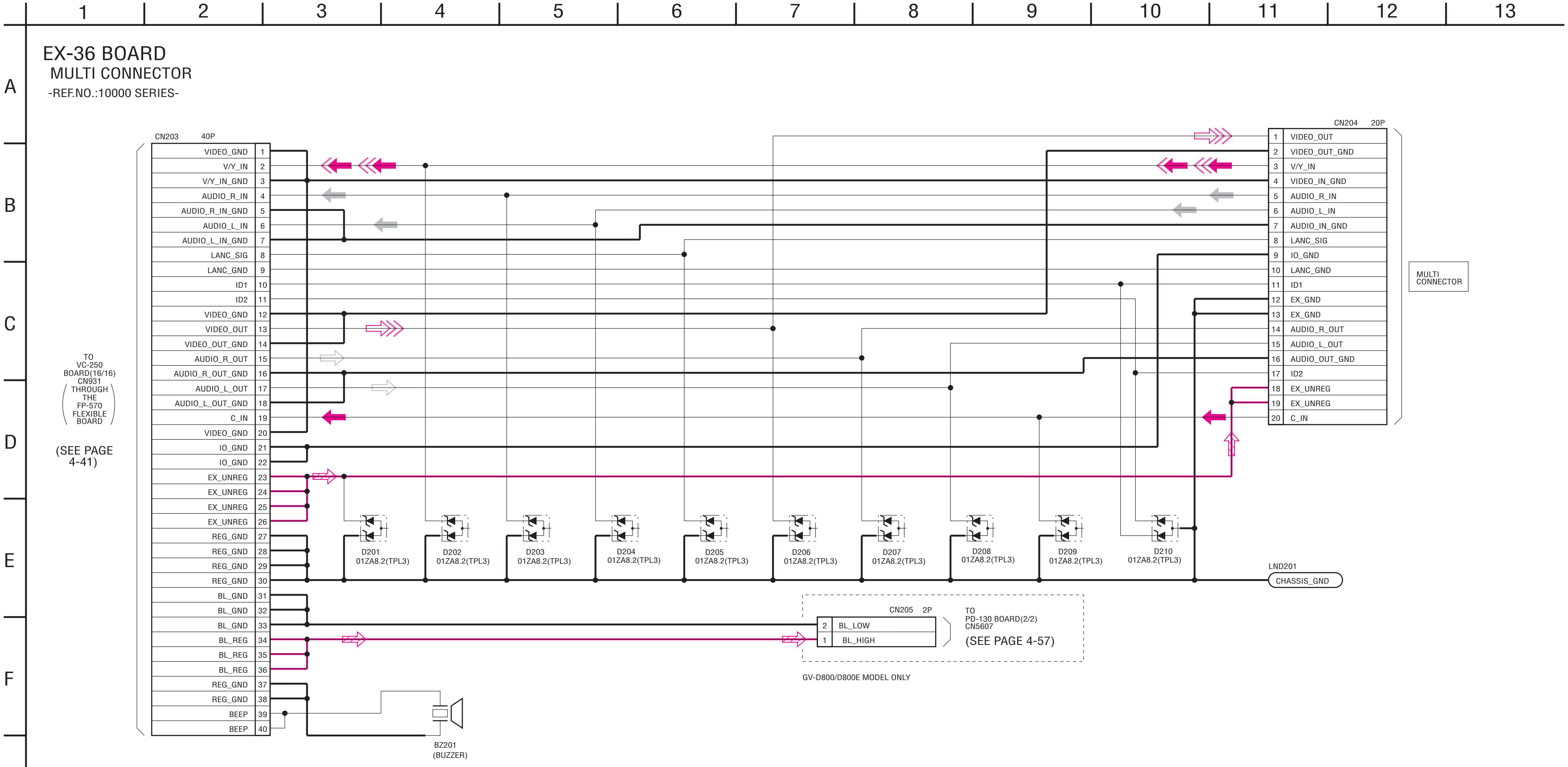
— Ref. No. EX-36 Board; 10,000 Series —


EX-36 BOARD(SIDE A)
F
E
D
C
B
A
CN205
1
2
BZ201
CN204
1
20
10
11
EX-36 BOARD(SIDE B)
LND201
CN203
40
30
20
10
1
D201
D210
D205
D204
D207
D208
D203
D202
D206
D209
1-679-714-
11
16
1
2
3
4
5

EX-36 BOARD

MULTI CONNECTOR

-REF.NO.:10000 SERIES-


1
2
3
4
5
6
7
8
9
10
11
12
13
A
B
C
D
E
F
CN203 40P
VIDEO_GND 1
V/Y_IN 2
V/Y_IN_GND 3
AUDIO_R_IN 4
AUDIO_R_IN_GND 5
AUDIO_L_IN 6
AUDIO_L_IN_GND 7
LANC_SIG 8
LANC_GND 9
ID1 10
ID2 11
VIDEO_GND 12
VIDEO_OUT 13
VIDEO_OUT_GND 14
AUDIO_R_OUT 15
AUDIO_R_OUT_GND 16
AUDIO_L_OUT 17
AUDIO_L_OUT_GND 18
C_IN 19
VIDEO_GND 20
IO_GND 21
IO_GND 22
EX_UNREG 23
EX_UNREG 24
EX_UNREG 25
EX_UNREG 26
REG_GND 27
REG_GND 28
REG_GND 29
REG_GND 30
BL_GND 31
BL_GND 32
BL_GND 33
BL_REG 34
BL_REG 35
BL_REG 36
REG_GND 37
REG_GND 38
BEEP 39
BEEP 40
TO VC-250 BOARD(16/16) CN931 THROUGH THE FP-570 FLEXIBLE BOARD
(SEE PAGE 4-41)
CN204 20P
1 VIDEO_OUT
2 VIDEO_OUT_GND
3 V/Y_IN
4 VIDEO_IN_GND
5 AUDIO_R_IN
6 AUDIO_L_IN
7 AUDIO_IN_GND
8 LANC_SIG
9 IO_GND
10 LANC_GND
11 ID1
12 EX_GND
13 EX_GND
14 AUDIO_R_OUT
15 AUDIO_L_OUT
16 AUDIO_OUT_GND
17 ID2
18 EX_UNREG
19 EX_UNREG
20 C_IN
MULTI CONNECTOR
D201 01ZA8.2(TPL3)
D202 01ZA8.2(TPL3)
D203 01ZA8.2(TPL3)
D204 01ZA8.2(TPL3)
D205 01ZA8.2(TPL3)
D206 01ZA8.2(TPL3)
D207 01ZA8.2(TPL3)
D208 01ZA8.2(TPL3)
D209 01ZA8.2(TPL3)
D210 01ZA8.2(TPL3)
LND201
CHASSIS_GND
CN205 2P
2 BL_LOW
1 BL_HIGH
TO PD-130 BOARD(2/2) CN5607
(SEE PAGE 4-57)
GV-D800/D800E MODEL ONLY
BZ201 (BUZZER)

SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC	➡	➡	➡	➡
PB			⇨	⇨

G

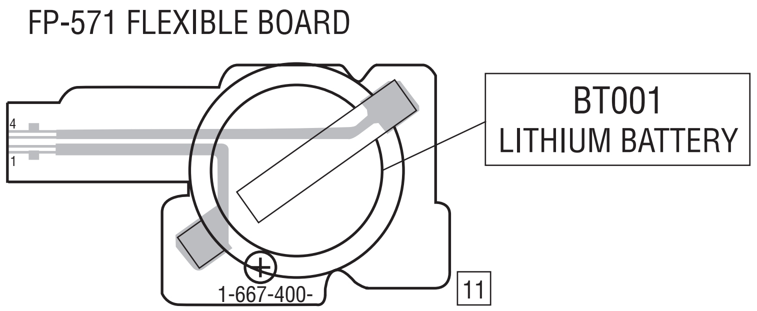
H

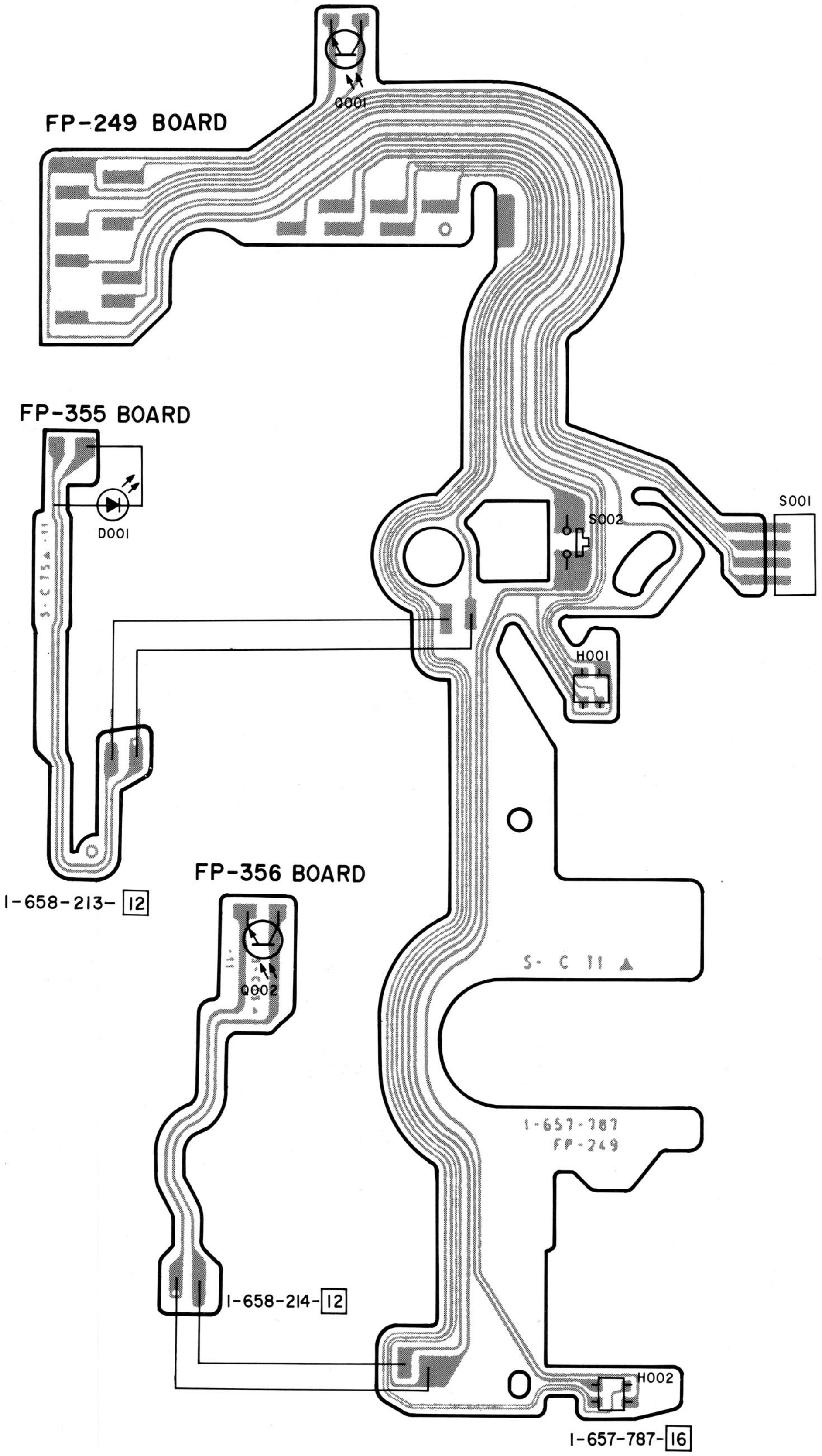
16

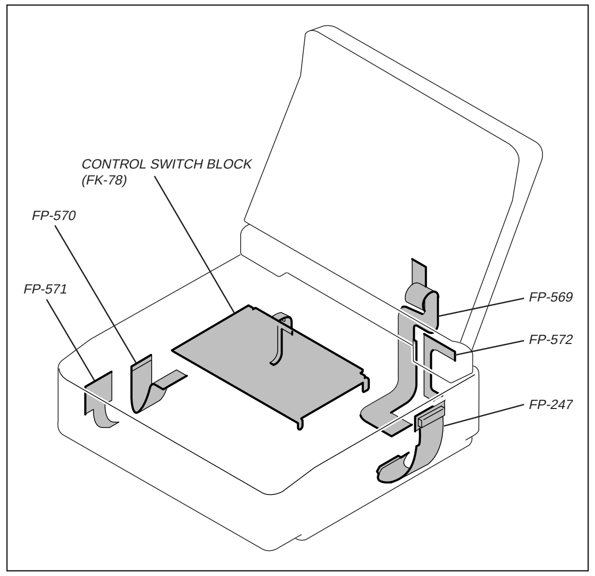
FP-571 (BATTERY), FP-249 (S/T REEL) PRINTED WIRING BOARDS

— Ref. No. FP-571, FP-249 Boards; 20,000 Series —

- Refer to page 4-37 for FP-571 schematic diagram.
- Refer to page 4-33 for FP-249, FP-355, FP-356 schematic diagrams.


FP-571 FLEXIBLE BOARD
BT001
LITHIUM BATTERY
4
1
1-667-400-
11

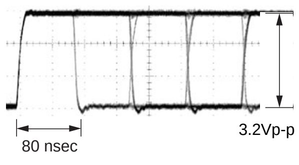

Q001
FP-249 BOARD
FP-355 BOARD
D001
S-C75A-11
1-658-213-
12
FP-356 BOARD
Q002
1-658-214-
12
S002
S001
H001
S- C 11 ▲
1-657-787
FP-249
H002
1-657-787-
16


CONTROL SWITCH BLOCK
(FK-78)
FP-570
FP-571
FP-569
FP-572
FP-247

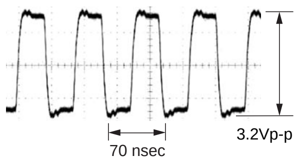
4-3. WAVEFORMS

VC-250 BOARD

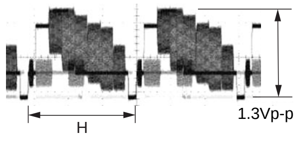
① IC1502 ② – ⑪



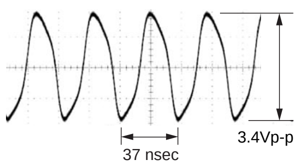
② IC1502 ⑯



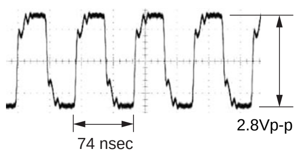
③ IC1502 ㉞
REC



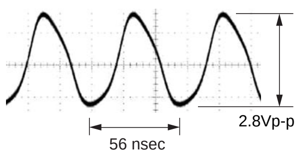
④ IC1504 ④



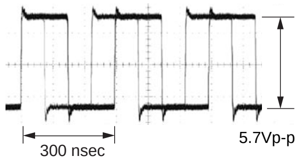
⑤ IC1505 ⑤



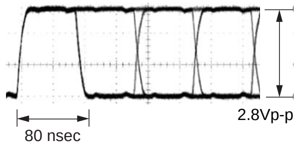
⑥ IC2201 (67)



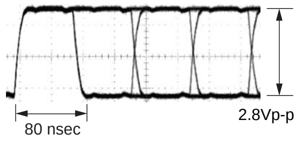
⑦ IC2201 (79)



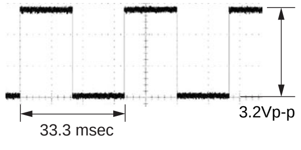
⑧ IC2201 (112),(114),(117),(119)
REC



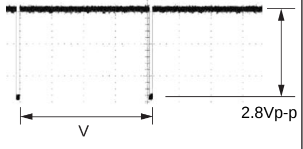
⑨ IC2201 (122),(124),(127),(129),(132),
(134),(137),(139) REC



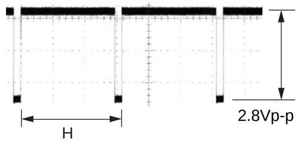
⑩ IC2201 (142)
REC



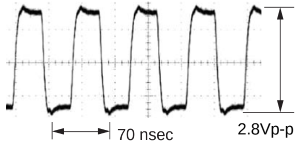
⑪ IC2201 (144)
REC



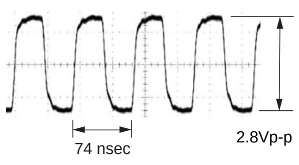
⑫ IC2201 (146)
REC



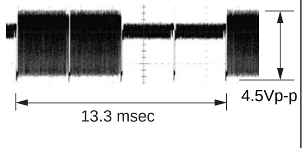
⑬ IC2201 (185)
REC



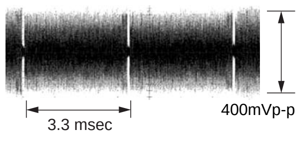
⑭ IC2201 (198)



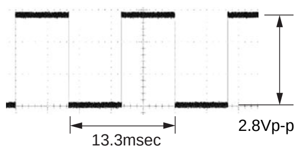
⑮ IC3103 ①,②,⑥,⑦
REC



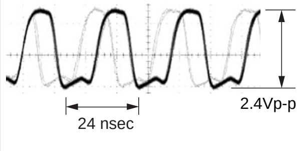
⑯ IC3101 ㊷, IC3103 ㉗,㉙
PB



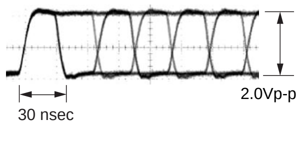
⑰ IC3103 ㉟



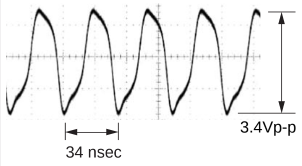
⑱ IC3103 ㊵
REC



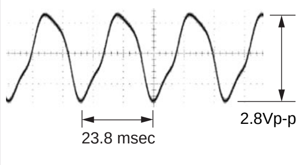
⑲ IC3103 ㊷
REC



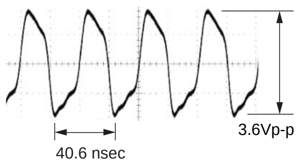
⑳ IC3301 ㊺



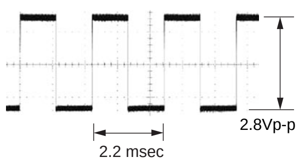
㉑ IC3301 (113)



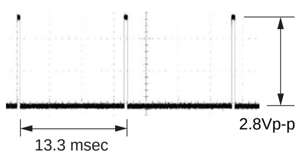
㉒ IC3301 (139)



㉓ IC4401 ⑯

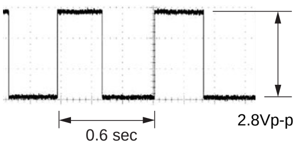


㉔ IC4401 ㉒

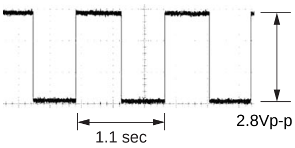


VC-250 BOARD

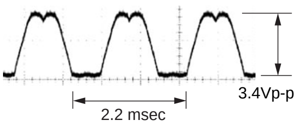
㉕ IC4401 ㉝



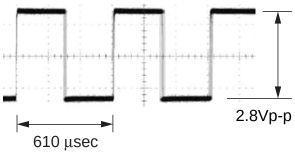
㉖ IC4401 ㊶



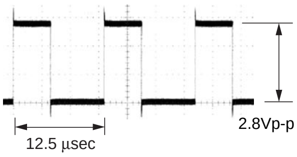
㉗ IC4401 (57),(59),(61)



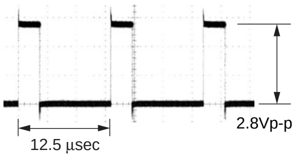
㉘ CN4403 ①



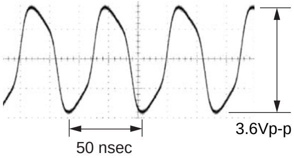
㉙ IC4501 (68)



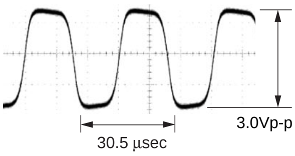
㉚ IC4501 (69)



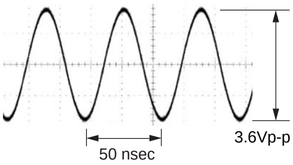
㉛ IC4803 ㊵



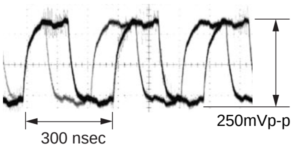
㉜ IC4803 (53)



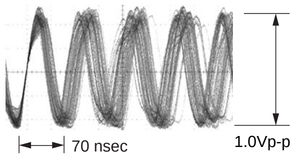
㉝ IC4902 ①



㉞ IC5701 ⑭

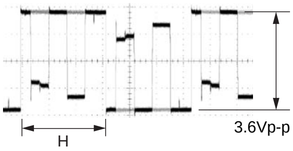


㉟ IC3901 ㉒ IR ON

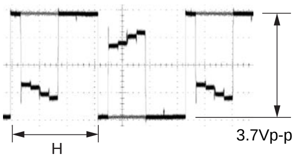


PD-130 BOARD

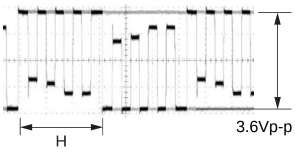
① IC5501 ⑳



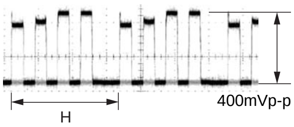
② IC5501 ㉒



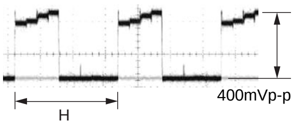
③ IC5501 ㉔



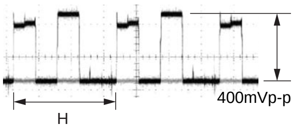
④ IC5501 ㊻



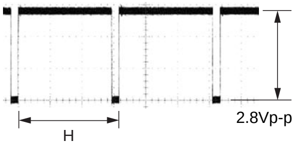
⑤ IC5501 ㊼



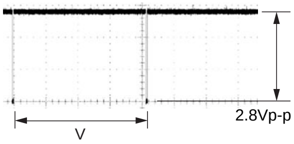
⑥ IC5501 ㊽



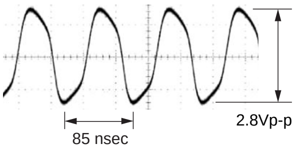
⑦ IC5502 ①



⑧ IC5502 ㊽



⑨ IC5502 ㉖



4-4. MOUNTED PARTS LOCATION

VC-250 BOARD (SIDE A)

C901	H-1
C902	F-9
C1320	D-9
C1322	D-9
C1333	D-9
C1336	C-9
C1340	C-9
C1343	C-9
C1353	D-9
C1505	E-7
C1507	E-7
C1508	D-2
C1510	F-8
C1512	E-8
C1513	D-1
C1514	D-1
C1515	D-1
C1516	D-1
C1517	D-1
C1518	D-1
C1519	C-2
C1520	C-1
C1521	C-2
C1522	C-2
C1523	C-2
C1524	C-2
C1526	D-2
C1527	E-7
C2201	C-6
C2202	C-6
C2203	D-5
C2204	D-6
C2208	C-6
C2210	D-6
C2211	C-6
C2212	D-6
C2213	C-5
C2214	D-4
C2215	D-5
C2222	C-5
C2223	C-5
C2224	C-5
C2225	D-4
C2226	C-5
C2227	D-6
C2228	C-4
C2229	D-5
C2230	D-6
C2231	D-6
C2232	D-3
C2233	D-4
C2234	D-6
C2235	D-6
C2236	D-4
C2238	D-4
C2240	E-4
C2241	E-6
C2242	F-6
C2243	F-4
C2244	D-6
C2245	D-3
C2246	E-3
C2250	D-3
C2251	E-6
C2252	F-5
C3121	B-5
C3123	B-5
C3124	B-5
C3125	B-5
C3126	B-5
C3127	B-5
C3128	B-5
C3129	B-5
C3131	B-4
C3133	B-4
C3134	B-5
C3136	B-5
C3137	B-4
C3138	B-5
C3139	B-5
C3140	B-5
C3142	A-4
C3143	A-4
C3144	A-4
C3201	B-4
C3202	B-3
C3203	B-3
C3204	B-3
C3205	B-3
C3206	B-3
C3207	B-3
C3208	B-3
C3210	C-4
C3211	C-4
C3212	C-4
C3214	C-4
C3215	C-4
C3218	B-4
C3347	D-6
C3701	C-8
C3737	C-8
C3738	D-8
C3739	D-8
C3740	D-8
C3741	C-8
C3742	D-7
C3743	D-7
C3744	D-7
C3745	C-7
C3746	D-7
C3747	D-7
C3748	C-7
C3749	C-8
C3752	D-7
C4401	A-8
C4402	A-9
C4403	A-7
C4404	A-7
C4405	A-7
C4406	A-7
C4407	A-8
C4409	B-7
C4410	A-9
C4411	B-7
C4412	B-7
C4413	B-7
C4414	A-9
C4415	B-8
C4416	B-8
C4417	B-7
C4418	B-8
C4419	B-7
C4420	B-8
C4421	B-7
C4423	B-8
C4424	A-2
C4425	B-8
C4427	B-8
C4428	C-7
C4429	C-7
C4430	C-7
C4436	C-8
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IC1505	E-7
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IC3103	B-5
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IC3702	D-8
IC3703	C-7
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R5773	H-8
R5785	G-7
R5786	G-7
S4801	C-3
X1501	E-8
X2201	D-3
X4801	H-3
X4802	G-1

VC-250 BOARD (SIDE B)

C903	E-20
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FB3701	C-14
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FB4901	H-18
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R3924	B-12
R3936	A-13
R3940	B-13
R4508	F-19
R4512	D-19
R4520	E-20
R4521	E-20
R4522	E-20
R4523	E-20
R4524	E-20
R4525	E-20
R4526	E-20
R4527	E-20
R4528	E-20
R4529	E-20
R4532	E-20
R4801	G-20
R4802	G-20
R4805	G-20
R4806	G-20
R4807	G-20
R4808	G-19
R4809	G-20
R4810	G-20
R4812	G-20
R4826	G-19
R4833	G-19
R4834	G-18
R4835	G-19
R4836	G-18
R4841	G-19
R4842	G-18
R4843	G-18
R4846	G-19
R4848	G-19
R4849	G-19
R4850	G-18
R4851	G-18
R4852	G-19
R4853	G-19
R4854	G-19
R4855	G-19
R4856	G-18
R4860	G-19
R4861	G-19
R4862	G-19
R4865	G-19
R4867	G-19
R4868	G-19
R4869	G-19
R4870	G-19
R4896	G-20
R4901	H-17
R4902	H-18
R4903	H-18
R4904	H-17
R4905	H-18
R4906	H-18
R4907	H-18
R4908	H-17
R4910	H-17
R4911	G-17
R4912	G-17
R4913	G-17
R4914	G-17
R4917	G-17
R4919	H-17
R4920	G-17
R4921	G-17
R4927	G-18
R4928	G-17
R4929	G-17
R4930	G-17
R4931	F-17
R4932	F-17
R4933	G-17
R4934	G-17
R4935	G-18
R4936	H-18
R4938	G-18
R4939	F-18
R4940	F-18
R4941	G-18
R4942	G-18
R4945	H-17
R4946	H-17
R4947	F-18
R4948	G-18
R4949	G-18
R4950	F-18
R4951	G-18
R4952	G-18
R4953	G-18
R5731	G-14
R5732	G-14
R5735	G-15
R5736	G-15
R5737	G-15
R5738	G-15
R5739	G-15
R5740	G-15
R5741	G-15
R5751	H-13
R5752	H-13
R5753	H-13
R5754	H-14
R5755	H-13
R5756	H-14
R5757	H-13
R5758	H-13
R5759	H-13
R5760	H-13
R5761	H-13
R5762	H-13
R5763	G-14
R5764	G-13
R5765	G-14
R5766	G-13
R5767	G-13
R5768	G-13
R5769	G-14
R5770	G-14
R5771	G-13
R5774	H-13
R5775	H-13
R5776	H-13
R5777	H-14
R5780	H-13
R5781	H-13
R5783	H-13
R5784	H-13
S4802	G-12
X3301	E-18
X3701	D-14
X4901	H-18

IO-68 BOARD (SIDE A)

C103	F-6
C104	E-6
C107	E-6
C110	E-6
C112	E-3
C117	D-1
C118	D-1
C119	F-2
C120	F-2
C121	E-1
C122	E-1
C123	F-2
C124	F-2
C127	E-1
CN104	E-1
D101	E-6
D102	F-3
D103	E-3
D104	E-6
D110	F-6
D113	F-3
D114	E-1
D115	F-3
D116	E-1
D117	F-2
D123	E-1
D124	E-1
D127	F-1
D128	E-1
D129	E-1
J101	E-2
J102	E-6
J103	E-3
L101	E-6
L103	E-7
L104	E-6
L105	E-1
L106	F-2
L107	E-1
L108	F-2
R101	F-7
R102	E-7
R103	F-7
R105	E-6
R106	E-6
R107	E-6
R120	E-3
R128	F-6
R129	F-6
R130	F-1
R131	F-1
R137	E-1
R138	E-5
R139	E-3
S101	F-6
S102	F-5
S103	F-4
S104	F-2
S105	F-1

IO-68 BOARD (SIDE B)

C101	B-7
C102	B-8
C113	C-5
C114	B-4
C115	B-3
C116	A-6
C125	B-2
C126	B-2
CN103	B-2
CN105	A-7
D105	C-5
D106	B-4
D107	B-3
D108	B-3
D109	A-6
D111	A-6
D112	A-6
D119	B-2
D120	B-2
D121	C-8
D122	C-7
D125	B-4
D126	C-5
FB101	A-6
R110	C-5
R111	B-4
R112	B-3
R121	B-1
R132	A-6
R133	A-6
R134	B-6
R135	B-2
R136	B-2

FU-145 BOARD (SIDE A)

C504	D-2
C505	E-2
C506	D-2
C507	F-3
C1301	E-7
C1302	E-7
C1303	E-7
C1304	E-7
C1305	E-7
C1306	E-7
C1307	E-7
C1308	D-6
C1309	F-6
C1310	D-6
C1311	F-6
C1312	D-6
C1313	E-6
C1314	D-6
C1315	E-5
C1316	E-5
C1317	E-5
C1318	E-5
C1319	E-5
C1324	D-6
C1334	E-5
C1337	E-4
C1347	E-5
C1348	F-6
C1352	F-5
C1359	E-4
CN501	E-1
CN502	F-2
CN1301	F-6
D1302	E-4
D1303	E-3
D1304	E-4
D1306	E-3
IC1301	E-6
L501	D-2
L1301	F-4
L1302	F-4
L1303	D-4
L1304	D-3
L1305	E-4
L1310	E-5
L1317	D-4
L1318	E-5
LF501	F-3
Q502	E-2
Q507	E-2
Q1308	E-5
Q1310	F-5
Q1311	F-6
Q1312	F-5
Q1313	F-5
Q1314	E-4
R502	F-3
R503	F-3
R513	E-2
R1301	E-7
R1302	E-7
R1303	D-7
R1304	D-6
R1305	D-7
R1306	E-7
R1307	D-7
R1309	D-6
R1310	F-6
R1311	F-6
R1312	D-6
R1313	F-6
R1314	D-6
R1316	F-7
R1317	E-5
R1318	E-5
R1319	E-4
R1320	E-3
R1321	F-5
R1322	F-5
R1326	D-6
R1345	F-6
R1346	F-6
R1347	F-5
R1348	F-5
T1301	E-3

FU-145 BOARD (SIDE B)

C501	A-2
C502	A-2
C503	B-2
C508	C-2
C1321	B-3
C1323	A-3
C1326	A-4
C1327	A-4
C1328	B-3
C1329	B-4
C1330	C-3
C1331	B-4
C1332	C-4
C1338	B-4
C1342	B-4
C1344	C-4
D501	A-2
D502	A-2
D503	B-1
D504	B-2
D505	A-2
D506	C-2
D507	C-2
D1301	B-3
D1305	B-3
F501	A-3
F502	B-2
F503	B-2
F504	B-2
F505	C-2
Q501	B-2
Q503	B-1
Q504	B-1
Q505	B-1
Q506	B-2
Q1301	B-3
Q1302	A-3
Q1303	B-4
Q1304	A-4
Q1305	C-4
Q1306	C-3
Q1307	A-4
Q1309	C-4
R501	A-2
R504	B-2
R505	B-2
R506	B-2
R507	B-2
R508	B-1
R509	B-1
R510	B-2
R511	C-2
R512	C-2

PD-130 BOARD (SIDE A)

C5501	F-5
C5502	F-5
C5503	E-6
C5504	F-6
C5505	E-7
C5506	E-7
C5507	E-7
C5508	F-6
C5509	E-5
C5510	E-6
C5511	F-6
C5512	F-6
C5513	E-6
C5514	E-5
C5515	F-5
C5516	F-5
C5517	E-5
C5518	E-5
C5519	E-5
C5520	D-6
C5521	F-7
C5522	F-7
C5523	G-6
C5524	F-7
C5525	E-6
C5526	E-6
C5527	E-6
C5528	D-6
C5529	F-7
C5530	G-7
C5531	G-7
C5601	E-4
C5602	D-4
C5603	D-4
C5604	E-2
C5605	F-4
C5606	G-4
C5607	G-3
CN5501	G-7
CN5502	D-7
CN5503	A-2
CN5505	C-4
CN5506	C-6
CN5604	G-3
CN5607	A-9
CN5608	D-8
D5501	E-6
D5502	F-6
D5503	D-7
D5504	F-7
D5505	A-1
D5506	C-3
D5601	G-4
D5603	D-3
D5604	E-8
D5605	F-1
IC5501	E-6
IC5502	F-6
IC5503	F-7
IC5601	E-4
IC5602	F-4
L5501	D-4
L5502	D-4
L5503	D-4
L5504	D-4
L5505	F-6
L5601	E-3

Q5501	F-6
Q5502	F-7
Q5503	G-7
Q5504	F-7
Q5505	F-7
Q5506	G-7
Q5601	E-4
Q5602	E-2
Q5603	F-4
Q5604	F-4
R5501	E-7
R5502	E-7
R5503	E-7
R5504	F-6
R5505	E-6
R5506	F-6
R5507	F-6
R5508	F-6
R5509	F-6
R5510	F-6
R5511	F-6
R5512	F-5
R5513	F-6
R5514	G-6
R5515	G-6
R5516	E-7
R5517	G-7
R5518	G-6
R5519	G-6
R5520	G-6
R5521	G-7
R5522	G-6
R5523	G-7
R5524	G-7
R5525	G-6
R5551	F-7
R5553	D-7
R5557	E-7
R5558	E-7
R5559	D-6
R5560	F-6
R5561	F-7
R5562	F-7
R5563	F-7
R5564	G-7
R5565	G-7
R5566	G-7
R5567	G-7
R5568	F-7
R5569	E-6
R5608	E-4
R5609	E-4
R5610	E-3
R5611	F-4
R5612	F-4
R5613	E-3
R5614	E-4
R5616	G-4
R5617	G-4
R5618	G-4
R5619	D-3
R5620	E-8
R5621	F-1
R5622	E-1
R5623	E-1
R5624	E-2
R5625	E-2
R5626	E-1
T5601	F-3

PD-130 BOARD (SIDE B)

S5601	G-18
S5602	D-18

IR-38 BOARD (SIDE A)

C392	A-1
D362	A-2
D363	A-1
F361	B-2
Q365	A-2
R388	A-1
R389	A-1
R392	B-1

IR-38 BOARD (SIDE B)

C382	C-3
C393	B-4
CN361	B-3
L363	C-3

EX-36 BOARD (SIDE A)

BZ201	E-2
CN204	E-5
CN205	E-1

EX-36 BOARD (SIDE B)

CN203	C-4
D201	B-3
D202	B-5
D203	B-5
D204	B-5
D205	B-5
D206	A-5
D207	B-5
D208	B-5
D209	A-5
D210	C-5

SECTION 5
ADJUSTMENTS

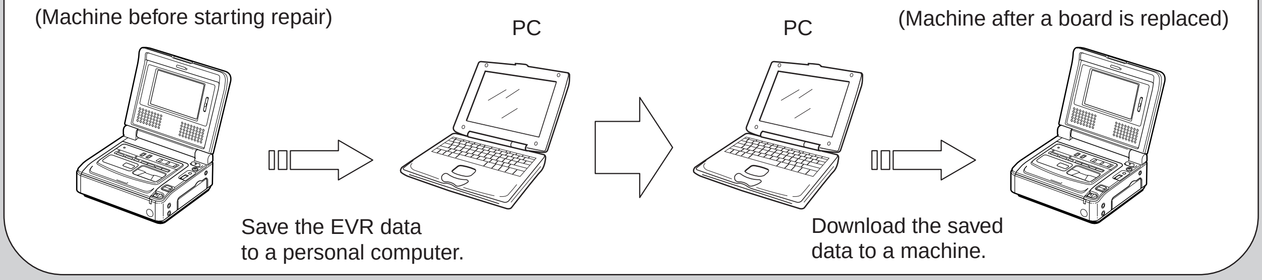
1. Before starting adjustment

EVR Data Re-writing Procedure When Replacing Board

The data that is stored in the repair board, is not necessarily correct.
Perform either procedure 1 or procedure 2 or procedure 3 when replacing board.

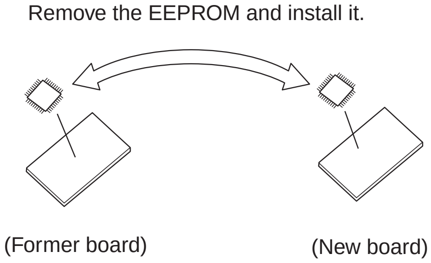
Procedure 1

Save the EVR data of the machine in which a board is going to be replaced. Download the saved data after a board is replaced.


(Machine before starting repair)
PC
PC
(Machine after a board is replaced)
Save the EVR data to a personal computer.
Download the saved data to a machine.

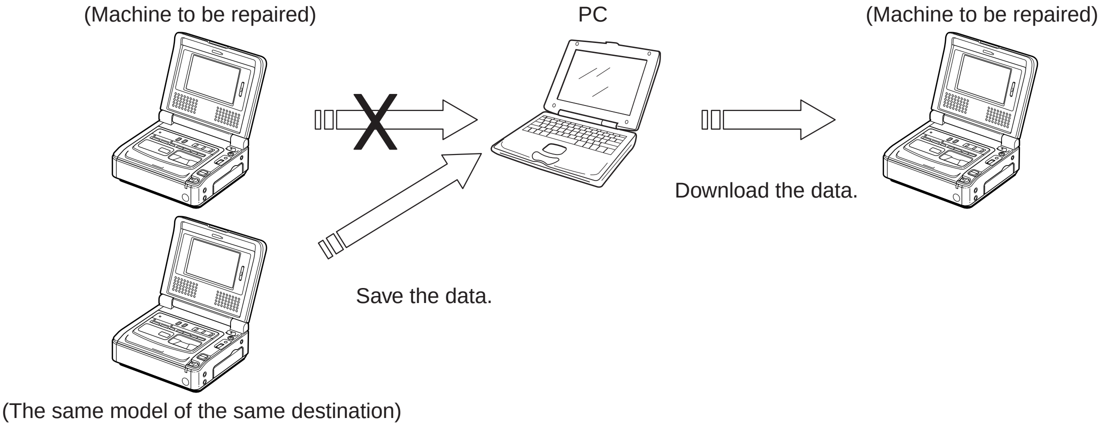
Procedure 2

Remove the EEPROM from the board of the machine that is going to be repaired. Install the removed EEPROM to the replaced board.


Remove the EEPROM and install it.
(Former board)
(New board)

Procedure 3

When the data cannot be saved due to defective EEPROM, or when the EEPROM cannot be removed or installed, save the data from the same model of the same destination, and download it.


(Machine to be repaired)
PC
(Machine to be repaired)
X
Download the data.
Save the data.
(The same model of the same destination)

After the EVR data is saved and downloaded, check the respective items of the EVR data.
(Refer to page 5-3 for the items to be checked.)

1-1. Adjusting items when replacing main parts and boards.

When replacing main parts, adjust the items indicated by ● in the following table.

*1: When replacing the drum assy. or mechanism deck, reset the data of page: 2, address: A2 to A4 to “00”. (Refer to “Record of Use check” of “5-4. SERVICE MODE”)

*2: GV-D800/D800E only

Adjustment Section	Adjustment	Replaced parts																		Board replacement		EEPROM replacement	
		Block replacement						Parts replacement															
		Mechanism deck *1	Mechanism deck M901 (Drum assy) *1	Mechanism deck M902 (Capstan motor)	Mechanism deck LS chassis assy	LCD block ND901 (Fluorescent tube) *2	LCD block LCD901 (LCD panel) *2	PD-130 board IC5501 (RGB driver (LCD)) *2	PD-130 board IC5502 (Timing generator (LCD)) *2	PD-130 board Q5602, T5601 (Inverter) *2	VC-250 board IC3103 (REC/PB AMP)	VC-250 board IC3101 (EQ, A/D conv. PLL)	VC-250 board IC3701 (LINE IN/OUT)	VC-250 board IC3301 (DV signal process)	VC-250 board IC1504, X1501 (X’tal OSC)	VC-250 board IC2291 (EVR)	VC-250 board IC2201 (Hi8/Std8 Y/C process)	VC-250 board IC3901 (IR transmitter)	VC-250 board IC5701 (AUDIO IN/OUT)	PD-130 board (COMPLETE) *2	VC-250 board (COMPLETE)	VC-250 board IC4502 (EEPROM)	VC-250 board IC4901 (EEPROM)
Initialization of C,D,E,F,7,8 page data	Initialization of C, D, 8 page data																				●	●	
	Initialization of E, F, 7 page data																				●		●
System control	Serial No. input																				●	●	
	Battery end adj.																				●	●	
Servo & RF	REEL FG adj.	●			●																●	●	
	Switching position adj.	●	●																		●	●	
	AGC center level adj.										●	●									●	●	
	APC & AEQ adj.										●	●									●	●	
	PLL fo & LPF fo adj.										●	●									●	●	
	Hi8/Std8 switching position adj.	●	●																		●		●
	CAP FG duty adj.	●		●																	●		●
Video	27MHz origin oscillation adj.														●	●					●		●
	Chroma BPF fo adj.												●								●	●	
	S VIDEO OUT Y level adj.												●	●							●	●	
	S VIDEO OUT chroma level adj.												●	●							●	●	
	Hi8/Std8 Y/C output level setting																●				●		●
	Hi8/Std8 AFC fo adj.															●	●				●		●
IR	IR video carrier frequency adj.															●		●			●		●
	IR video deviation adj.												●			●		●			●		●
	IR audio deviation adj.															●		●	●		●		●
Audio	Hi8/Std8 AFM BPF fo adj.															●			●		●		●
	Hi8/Std8 AFM 1.5MHz deviation adj.															●			●		●		●
	Hi8/Std8 AFM 1.7MHz deviation adj.															●			●		●		●
LCD *2	LCD initial data input																				●	●	
	VCO adj.								●											●	●	●	
	RGB AMP adj.							●												●	●	●	
	Contrast adj.							●						●						●	●	●	
	COM-AMP adj.							●												●	●	●	
	V-COM adj.						●	●												●	●	●	
	White balance adj.					●	●	●		●										●	●	●	
Mechanism	Tape path adj.	●	●	●	●																		

Table. 5-1-1

5-1. ADJUSTMENT PREPARATIONS

For details of the adjustment remote commander, refer to “5-4. SERVICE MODE”.

With 4-inch LCD panel: GV-D800/D800E
Without 4-inch LCD panel: GV-D200/D200E

1-1. PREPARATIONS BEFORE ADJUSTMENT

1-1-1. List of Service Tools

- Oscilloscope
- Digital voltmeter
- Regulated power supply
- Pattern generator
- Frequency counter
- Monitor TV

Ref. No.	Name	Parts Code	Usage
J-1	Adjustment remote commander (RM-95 upgraded). (Note 1)	J-6082-053-B	
J-2	CPC-13 jig	J-6082-443-A	For adjusting the video section
J-3	Multi CPC jig	J-6082-311-A	For adjusting the LCD block
J-4	Power cord (Note 2)	J-6082-223-A	For connecting the battery terminal and DC power supply
J-5	IR receiver jig	J-6082-383-A	For adjusting the IR transmitter

Note 1: If the micro processor IC in the adjustment remote commander is not the new micro processor (UPD7503G-C56-12), the pages cannot be switched. In this case, replace with the new micro processor (8-759-148-35).

Note 2: Connect the adjustment remote commander to the LANC jack, and set to HOLD switch to the “ADJ” side.

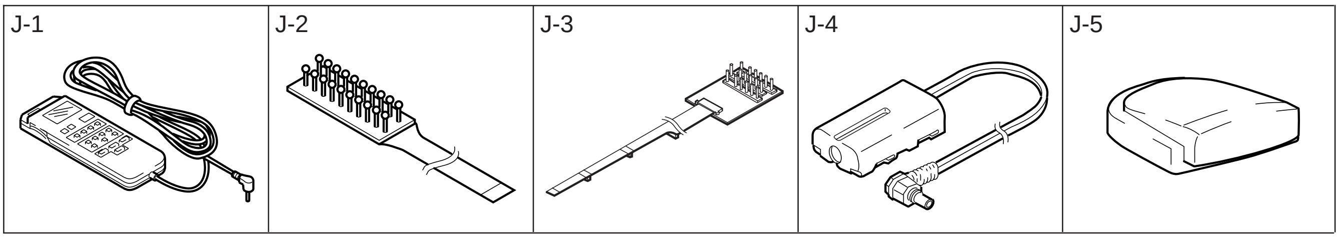


Fig. 5-1-1.

5-2. MECHANISM SECTION ADJUSTMENT

Mechanism Section adjustments, checks, and replacement of mechanism parts, refer to the separate volume “8mm Video Mechanism Adjustment Manual Ⅶ B Mechanism ”.

Note 1: NTSC model: GV-D200/D800
PAL model: GV-D200E/D800E

2-1. Hi8/STANDARD8 MODE

2-1-1. OPERATING WITHOUT CASSETTE

1) Refer to “Section 2. DISASSEMBLY” and supply the power with the cabinet assembly removed. (So that the mechanical deck can be operated.)
2) Connect the adjustment remote commander to the LANC jack.
3) Turn on the HOLD switch of the adjustment remote commander.
4) Close the cassette compartment without loading a cassette and complete loading.
5) Select page: 0, address: 01, and set data: 01.
6) Select page: F, address: 22, set data: 81, and press the PAUSE button of the adjustment remote commander.
7) Select page: D, address: 10, set data: 10, and press the PAUSE button of the adjustment remote commander.
8) Disconnect the power supply of the unit.
   By carrying out the above procedure, the unit can be operated without loading a cassette. (Note2)
   Be sure to carry out “Processing after Operations” after checking the operations.
   Set the data of page: D, address: 10 to “12”, if the sensor ineffective mode, forced VTR power supply ON mode is to be used together.
   Note 2: Except for the recording mode.

[Procedure after checking operations]

1) Select page: 0, address: 01, and set data: 01.
2) Select page: F, address: 22, set data: 80, and press the PAUSE button of the adjustment remote commander.
3) Select page: D, address: 10, set data: 00, and press the PAUSE button of the adjustment remote commander.
4) Select page: 0, address: 01, and set data: 00.
5) Disconnect the power supply of the unit.

2-1-2. TAPE PATH ADJUSTMENT

1. Preparations for Adjustment

1) Clean the tape path face (tape guide, capstan shaft, pinch roller).
2) Connect the adjustment remote commander to the LANC jack.
3) Turn on the HOLD switch of the adjustment remote commander.
4) Select page: 0, address: 01, and set data: 01.
5) Select page: 2, address: 2E, and set data: 02.
6) Select page: F, address: 22, set data: 88, and press the PAUSE button of the adjustment remote commander.
   (Be sure to perform “Processing after operation” after completing adjustments.)
7) Connect the oscilloscope to VC-250 board CN933 via CPC-13 jig (J-6082-443-A).
   Channel 1: VC-250 board, CN933 Pin ⑤
   External trigger: VC-250 board, CN933 Pin ⑧
8) Playback Hi8/standard8 alignment tape for tracking.
   (WR5-1NP(NTSC))
   (WR5-1CP(PAL))
9) Check that the oscilloscope RF waveform is flat at the entrance and exit.
   If not flat, adjust according to the separate volume “8mm Video Mechanical Adjustment Manual Ⅶ B Mechanism ”.
10) Perform “Processing after operations”, after completing adjustment.

CN933 of VC-250board

Pin No.	Signal Name	Pin No.	Signal Name
1	SWP	11	NC
2	AFC F0	12	NC
3	BPF MONI	13	DV RF SWP
4	F0 ADJ RF IN	14	RF IN
5	PB RF	15	CAP FG
6	REG GND	16	RF MON
7	RF AGC OUT	17	TMS
8	VC RF SWP	18	TCK
9	NC	19	TDO
10	NC	20	TDI

Table 5-2-1.

[Procedure after operations]

1) Connect the adjustment remote commander, and turn on the HOLD switch.
2) Select page: 0, address: 01, and set data: 01.
3) Select page: 2, address: 2E, and set data: 00.
4) Select page: F, address: 22, set data: 80, and press the PAUSE button of the adjustment remote commander.
5) Select page: 0, address: 01, and set data: 00.
6) Remove the power supply from the unit.

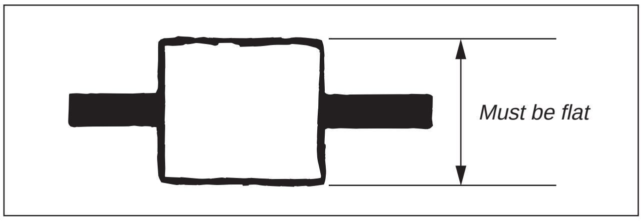


Fig. 5-2-1.

2-2. DIGITAL8 MODE

2-2-1. HOW TO ENTER RECORD MODE WITHOUT CASSETTE

1) Connect the adjustment remote commander to the LANC jack.
2) Turn the HOLD switch of the adjustment remote commander to the ON position.
3) Close the cassette compartment without the cassette.
4) Select page: 3, address: 01, and set data: 0C, and press the PAUSE button of the adjustment remote commander.
   (The mechanism enters the record mode automatically.)
   Note: The function buttons becomes inoperable.
5) To quit the record mode, select page: 3, address: 01, set data: 00, and press the PAUSE button of the adjustment remote commander. (Whenever you want to quit the record mode, be sure to quit following this procedure.)

2-2-2. HOW TO ENTER PLAYBACK MODE WITHOUT CASSETTE

1) Connect the adjustment remote commander to the LANC jack.
2) Turn the HOLD switch of the adjustment remote commander to the ON position.
3) Close the cassette compartment without the cassette.
4) Select page: 3, address: 01, and set data: 0B, and press the PAUSE button of the adjustment remote commander.
   (The mechanism enters the playback mode automatically.)
   Note: The function buttons becomes inoperable.
5) To quit the playback mode, select page: 3, address: 01, set data: 00, and press the PAUSE button of the adjustment remote commander. (Whenever you want to quit the playback mode, be sure to quit following this procedure.)

2-2-3. OVERALL TAPE PATH CHECK

1. Recording of the tape path check signal

1) Clean the tape running side (tape guide, capstan shaft, pinch roller).
2) Input a color bar signal to the AUDIO/VIDEO INPUT jack.
3) Connect the adjustment remote commander to the LANC jack.
4) Turn the HOLD switch of the adjustment remote commander to the ON position.
5) Set to the recording mode.
6) Select page: 3, address: 1C, set data: 5D, and press the PAUSE button of the adjustment remote commander.
7) Record for several minutes.
8) Release the recording mode.
9) Select page: 3, address: 1C, set data: 00, and press the PAUSE button.

2. Tape path check

1) Clean the tape running side (tape guide, capstan shaft, pinch roller).
2) Connect the adjustment remote commander to the LANC jack.
3) Turn the HOLD switch of the adjustment remote commander to the ON position.
4) Connect an oscilloscope to VC-250 board CN933 via the CPC-13 jig (J-6082-443-A).
   Channel 1: VC-250 board, CN933 Pin ⑯ (Note)
   External trigger: VC-250 board, CN933 Pin ⑬
   Note: Connect a 75Ω resistor between Pins ⑯ of CN910 and ⑥ (GND).
5) Select page: 2, address: 2E, and set data: 01.
6) Playback the tape path check signal.
7) Select page: 3, address: 33, and set data: 08.
8) Select page: 3, address: 26, and set data: 31.
9) Check that the oscilloscope RF waveform is flat at the entrance and exit.
   If not flat, perform “2-1-2. TAPE PATH ADJUSTMENT “ of “2-1. Hi8/STANDARD 8mm MODE”.
10) Select page: 3, address: 26, and set data: 00.
11) Select page: 3, address: 33, and set data: 00.
12) Select page: 2, address: 2E, and set data: 00.

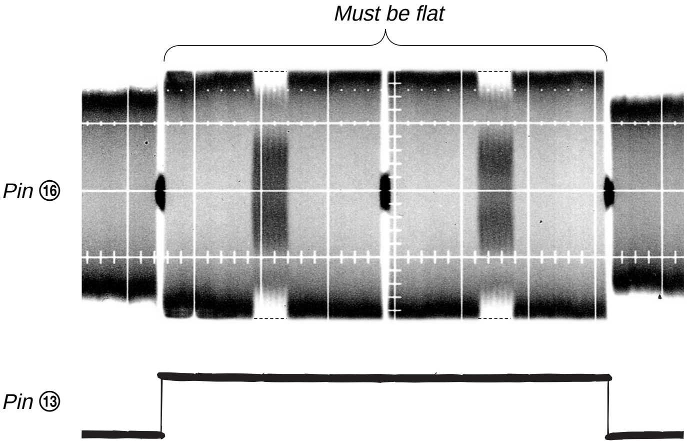


Fig. 5-2-2.

5-3. ELECTRICAL ADJUSTMENT

For details of the adjustment remote commander, refer to "5-4. SERVICE MODE".

3-1. PREPARATIONS BEFORE ADJUSTMENTS

Use the following measuring instruments for video section adjustments.

Note: NTSC model: GV-D200/D800
PAL model: GV-D200E/D800E

3-1-1. Equipment to Required

1) TV monitor
2) Oscilloscope (dual-phenomenon, band width above 30 MHz with delay mode) (Unless specified otherwise, use a 10 : 1 probe.)
3) Frequency counter
4) Pattern generator with video output terminal
5) Digital voltmeter
6) Audio generator
7) Audio level meter
8) Audio distortion meter
9) Audio attenuator
10) Regulated power supply
11) Digital8 alignment tapes
    - SW/OL standard (WR5-2D)
      Parts code: 8-967-993-22
    - Audio operation check for NTSC (WR5-3ND)
      Parts code: 8-967-993-32
    - System operation check for NTSC (WR5-5ND)
      Parts code: 8-967-993-42
    - Audio operation check for PAL (WR5-3CD)
      Parts code: 8-967-993-37
    - System operation check for PAL (WR5-5CD)
      Parts code: 8-967-993-47
12) NTSC Hi8/standard8 alignment tapes (For NTSC model)
    - For tracking adjustment (WR5-1NP)
      Parts code : 8-967-995-02
    - For video frequency characteristics adjustment (WR5-7NE)
      Parts code : 8-967-995-13
    - For checking Standard 8 mode operations
      For LP (WR5-4NL)
        Parts code : 8-967-995-51
      For SP (WR5-5NSP)
        Parts code : 8-967-995-42

    Note : The following alignment tapes can also be used.
    WR5-4NSP (8-967-995-41)
    - For checking Hi8 mode operations
      For LP (WR5-8NLE)
      Parts code : 8-967-995-52
      For SP (WR5-8NSE)
      Parts code : 8-967-995-43
    - For Checking AFM stereo operations (WR5-9NS)
      Parts code : 8-967-995-23
    - For BPF adjustment (WR5-11NS)
      Parts code : 8-967-995-71
13) PAL Hi8/standard8 alignment tapes (For PAL model)
    - For tracking adjustment (WR5-1CP)
      Parts code : 8-967-995-07
    - For video frequency characteristics adjustment (WR5-7CE)
      Parts code : 8-967-995-18
    - For checking Standard 8 mode operations
      For LP (WR5-4CL)
        Parts code : 8-967-995-56
      For SP (WR5-5CSP)
        Parts code : 8-967-995-47

    Note : The following alignment tapes can also be used.
    1) WR5-3CL (8-967-995-36)
    2) WR5-4CSP (8-967-995-46)
    - For checking Hi8 mode operations
      For LP (WR5-8CLE)
        Parts code : 8-967-995-57
      For SP (WR5-8CSE)
        Parts code : 8-967-995-48
    - For Checking AFM stereo operations (WR5-9CS)
        Parts code : 8-967-995-28
    - For BPF adjustment (WR5-11CS)
        Parts code : 8-967-995-76
14) Adjustment remote commander (J-6082-053-B)
15) CPC-13 jig (J-6082-443-A)
16) Power code (J-6082-223-A)

    Note : Connect the adjustment remote commander to the LANC jack, and set the HOLD switch to the "ADJ" side.
17) IR receiver jig (J-6082-383-A)
18) Multi CPC jig (J-6082-311-A)

3-1-2. Precautions on Adjusting

1) Disconnecting the VC-250 board CN926 (4P, 0.8mm) means disconnecting the lithium 3V power supply (FP-571 board BT001), data such as date, time, user-set menus will be lost. After completing adjustments, reset these data. If the CN926 has been disconnected, the self-diagnosis data, data on history of use (total drum rotation time etc.) will be lost. Before disconnecting, note down the self-diagnosis data (data of page: 2, address: B0 to C6) and data on history use (data of page: 2, address: A2 to AA). (Refer to "5-4. SERVICE MODE" for the self-diagnosis data and the data on the history use.)
2) To remove the cabinet (upper) and LCD block (GV-D800/D800E only), disconnect the following connectors.

   VC-250 board CN926 (4P 0.8mm)
   (Lithium battery)
   VC-250 board CN931 (40P 0.5mm)
   (EX-36 board (Multi connector))
   VC-250 board CN929 (5P 0.8mm)
   (DV jack)
   VC-250 board CN923 (32P 0.5mm) (GV-D800/D800E only)
   (PD-130 board (LCD panel)
   VC-250 board CN924 (10P 0.5mm)
   (IR-38 board (IR transmitter))
   VC-250 board CN922 (50P 0.5mm)
   (IO-68 board, FP-575 flexibles, FP-246 flexible)

   As the video and audio jacks and LANC jack are provided on the IO-68 board and the power switch is provided on the FP-575 flexible board, these boards must be connected to the VC-250 board. So remove the cabinet (R) assembly (IO-68 board and FP-575 flexible and FP-246 flexible) from the cabinet (upper) assembly and connect it to the following connector.

   VC-250 board CN922 (50P 0.5mm)
3) By setting the "Forced VTR Power ON mode", the video section can be operate even if the FP-575 flexible board (power switch) has been removed.

Note 1: Setting the "Forced VTR Power ON" mode (VTR mode)
1) Select page: 0, address: 01, and set data: 01.
2) Select page: D, address: 10, set data: 02, and press the PAUSE button of the adjustment remote commander.
   The above procedure will enable the VTR power to be turned on with the FP-575 flexible board removed.
   After completing adjustments, be sure to exit the "Forced VTR Power ON mode".

Note 2: Exiting the "Forced Power ON" mode
1) Select page: 0, address: 01, and set data: 01.
2) Select page: D, address: 10, set data: 00, and press the PAUSE button of the adjustment remote commander.
3) Select page: 0, address: 01, and set data: 00.

3-1-3. Adjusting Connectors

Some of the adjusting points of the video section are concentrated at VC-250 board CN933. Connect the measuring instruments via the CPC-13 jig (J-6082-443-A). The following table lists the pin numbers and signal names of CN933.

Pin No.	Signal Name	Pin No.	Signal Name
1	SWP	11	NC
2	AFC F0	12	NC
3	BPF MONI	13	DV RF SWP
4	FO ADJ RF IN	14	RF IN
5	PB RF	15	CAP FG
6	REG GND	16	RF MON
7	RF AGC OUT	17	TMS
8	VC RF SWP	18	TCK
9	NC	19	TDO
10	NC	20	TDI

Table. 5-3-1.

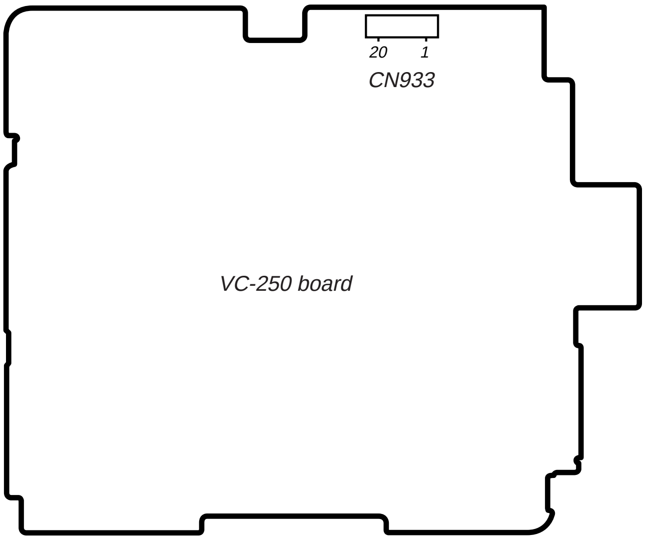
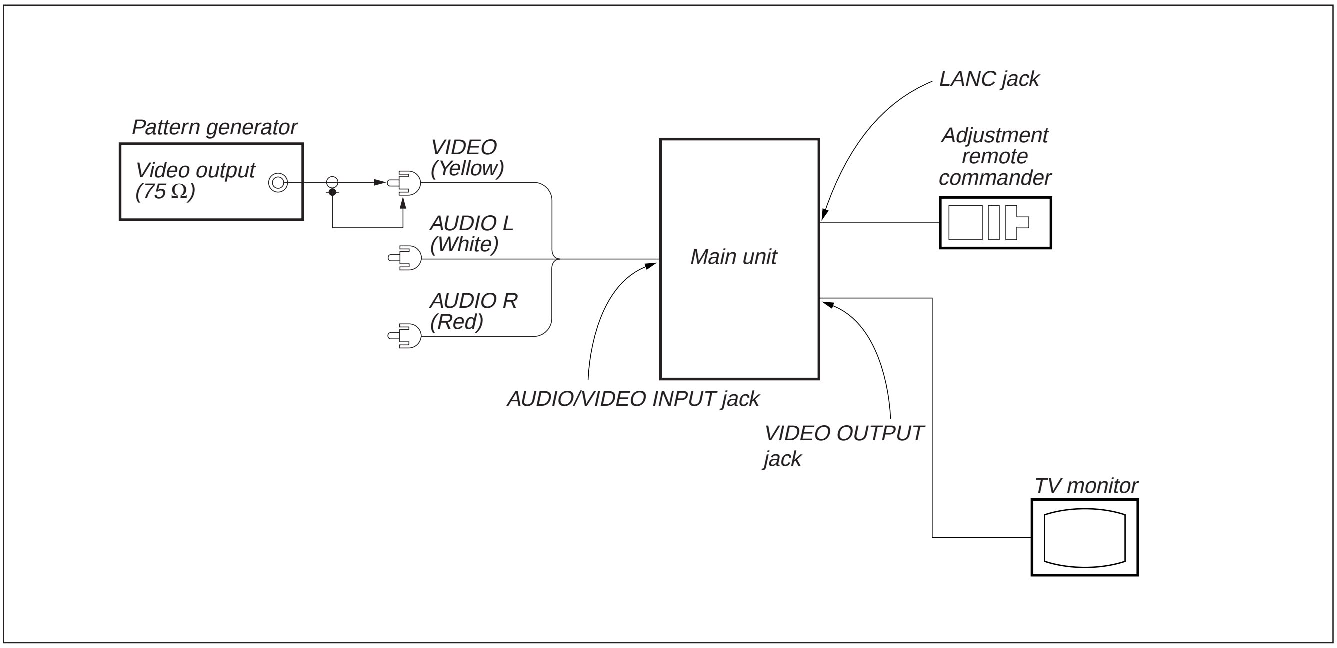


Fig. 5-3-1.

3-1-4. Connecting the Equipment

Connect the measuring instruments as shown in Fig. 5-3-2, and perform the adjustments.



LANC jack
Pattern generator
Video output
(75 Ω)
VIDEO
(Yellow)
AUDIO L
(White)
AUDIO R
(Red)
Main unit
Adjustment
remote
commander
AUDIO/VIDEO INPUT jack
VIDEO OUTPUT
jack
TV monitor

Fig. 5-3-2

3-1-5. Alignment Tape

The following table lists alignment tapes which are available.
Use the tape specified in the signal column for each adjustment. If the type of tape to be used for checking operations is not specified, use whichever type.

Digital8 alignment tape

Name	Usage
SW/OL standard (WR5-2D)	Switching position adjustment
Audio operation check (WR5-3ND (NTSC), WR5-3CD (PAL))	Audio system adjustment
System operation check (WR5-5ND (NTSC), WR5-5CD (PAL))	Operation check

Hi8/standard8 alignment tape

Name	Recording mode	Tape type	Tape speed	Usage
Tracking (WR5-1NP(NTSC), WR5-1CP(PAL))	Standard8	MP	SP	Tape path adjustment, Switching position adjustment
Video frequency characteristics (WR5-7NE(NTSC), WR5-7CE(PAL))	Hi8	ME	SP(NTSC) LP(PAL)	Frequency characteristics adjustment
Operation check (WR5-5NSP(NTSC), WR5-5CSP(PAL))	Standard8	MP	SP	Operation check
Operation check (WR5-8NSE(NTSC), WR5-8CSE(PAL))	Hi8	ME	SP	
Operation check (WR5-4NL(NTSC), WR5-4CL(PAL))	Standard8	MP	LP	
Operation check (WR5-8NLE(NTSC), WR5-8CLE(PAL)	Hi8	ME	LP	
AFM stereo operation check WR5-9NS(NTSC), WR5-9CS(PAL)	Standard8	MP	SP	AFM stereo Operation check
BPF adjustment WR5-11NS(NTSC), WR5-11CS(PAL)	Standard8	MP	SP	BPF adjustment

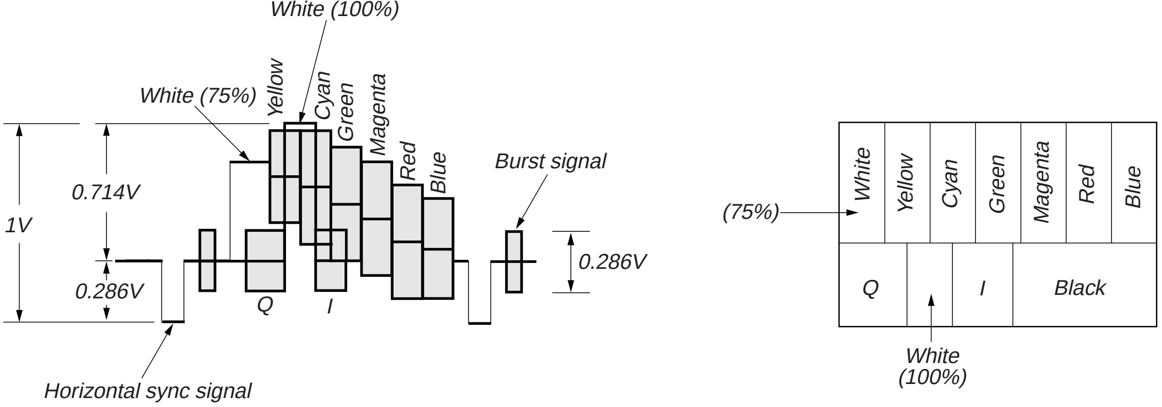
Tape type
ME .... Particle type metal tape
MP .... Evaporated type metal tape

Table. 5-3-2.

Fig. 5-3-3. Shows the color bar signals recorded on the alignment tape.

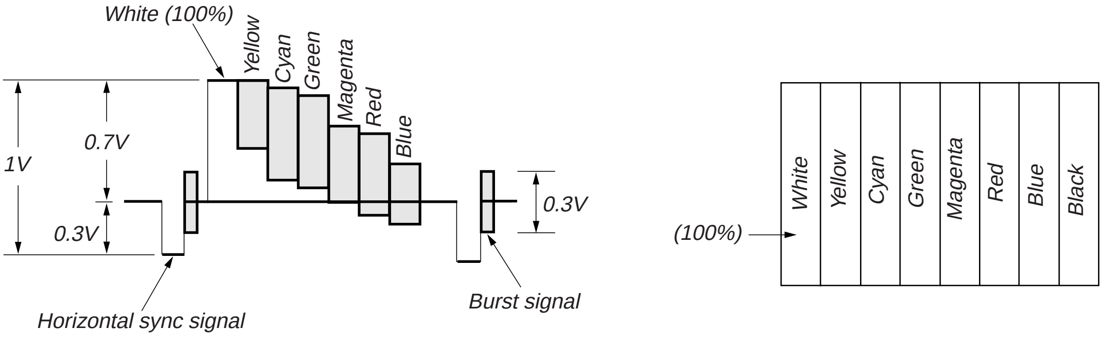
Note : Measure using the VIDEO terminal (Terminated at 75 Ω).

For NTSC model


White (100%)
White (75%)
Yellow
Cyan
Green
Magenta
Red
Blue
Burst signal
1V
0.714V
0.286V
0.286V
Q
I
Horizontal sync signal
(75%)
White
Yellow
Cyan
Green
Magenta
Red
Blue
Q
I
Black
White (100%)

Color bar signal waveform *Color bar pattern*

For PAL model


White (100%)
Yellow
Cyan
Green
Magenta
Red
Blue
1V
0.7V
0.3V
0.3V
Horizontal sync signal
Burst signal
(100%)
White
Yellow
Cyan
Green
Magenta
Red
Blue
Black

Color bar signal waveform *Color bar pattern*

Fig. 5-3-3. Color Bar Signal of the Alignment Tape

3-1-6. Input/output Level and Impedance

Video input/output

Phono jack, 1Vp-p, 75Ω, unbalanced, sync negative

S video input/output

4-pin mini DIN

Luminance signal:

1Vp-p, 75Ω, unbalanced, sync negative

Chrominance signal:

0.286Vp-p, 75Ω, unbalanced (NTSC)

0.300Vp-p, 75Ω, unbalanced (PAL)

Audio input/output

Phono jack:

Input: -7.5dBs, input impedance more than 47kΩ

Output: -7.5dBs, (at load impedance 47kΩ), output impedance less than 2.2kΩ

3-2. INITIALIZATION OF C, D, E, F, 7, 8 PAGE DATA

3-2-1. INITIALIZATION OF C, D, 8 PAGE DATA

1. Initializing the C, D, 8 Page Data

Note 1: If "Initializing the C, D, 8 Page Data" is performed, all data of the C page, D page and 8 page will be initialized. (It is impossible to initialize a single page.)

Note 2: If the C, D, 8 page data has been initialized, the following adjustments need to be performed again.
1) Modification of C, D, 8 page data
2) Serial No. input
3) Servo and RF system adjustments
4) Video system adjustments
5) LCD system adjustments
6) Battery end adjustments

Adjusting page	C
Adjusting Address	10 to FF
Adjusting page	D
Adjusting Address	10 to FF
Adjusting page	8
Adjusting Address	00 to FF

Initializing Method:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data
2	3	81	10	Set the data
3	3	80	0A	Set the data, and press the PAUSE button.
4	3	80		Check that the data changes to "1A"
5				Perform "Modification of C, D, 8 Page Data".

2. Modification of C, D, 8 Page Data

If the C, D, 8 page data has been initialized, change the data of the "Fixed data-2" address shown in the following tables by manual input.

Modifying Method:

1) Before changing the data, select page: 0, address: 01, and set data: 01.
2) New data for changing are not shown in the tables because they are different in destination. When changing the data, copy the data built in the same model.
   Note: If copy the data built in the different model, the camcorder may not operate.
3) When changing the data, press the PAUSE button of the adjustment remote commander each time when setting new data to write the data in the non-volatile memory.
4) Check that the data of adjustment addresses is the initial value. If not, change the data to the initial value.

Processing after Completing Modification of C, D, 8 Page data

Order	Page	Address	Data	Procedure
1	2	00	29	Set the data
2	2	01	29	Set the data, and press the PAUSE button.

Note: If the following symptoms occur after completing of the "Modification of C, D, 8 page data", check that the data of the "Fixed data-2" addresses of D page are same as those of the same model of the same destination.
1) The battery end mark on the LCD screen is flashing.
2) The power is shut off so that unit cannot operate.

3. C Page Table

Note: Fixed data-1: Initialized data. (Refer to "1. Initializing the C, D, 8 Page Data".)
Fixed data-2: Modified data. (Refer to "2. Modification of C, D, 8 Page Data").

Address	Initial value		Remark
	NTSC	PAL	
00 to 0F			
10	EE	EE	Switching position adj.
11	00	00	
12	00	00	
13	00	00	
14 to 16			Fixed data-1
17	E0	E0	REEL FG adj.
18	25	25	AEQ adj.
19	25	25	
1A			Fixed data-1
1B	25	25	AEQ adj.
1C	25	25	
1D			Fixed data-1
1E	25	25	AGC center level adj.
1F	3E	3E	PLL fo adj.
20	3E	3E	
21	CA	CA	APC adj.
22	99	99	LPF fo adj.
23 to 24			Fixed data-1
25	88	88	S VIDEO out Y level adj.
26	E3	E3	S VIDEO out Cr level adj.
27	A1	A1	S VIDEO out Cb level adj.
28	04	04	Chroma BPF fo adj.
29	20	20	PLL fo fine adj.
2A to 2B			Fixed data-1
2C	03	03	APC adj.
2D to 2E			Fixed data-1
2F			Fixed data-2
30	E0	E0	REEL FG adj.
31 to 45			Fixed data-1
46			Fixed data-2
47 to 4C			Fixed data-1
4D			Fixed data-2
4E to 85			Fixed data-1
86			Fixed data-2
87 to 88			Fixed data-1
89			Fixed data-2
8A to 91			Fixed data-1
92			Fixed data-2

Address	Initial value		Remark
	NTSC	PAL	
93 to 99			Fixed data-1
9A			Fixed data-2
9B to A4			Fixed data-1
A5			Fixed data-2
A6			
A7 to AA			Fixed data-1
AB			Fixed data-2
AC			Fixed data-1
AD			Fixed data-2
AE			Fixed data-1
AF			Fixed data-2
B0			
B1			Fixed data-1
B2			Fixed data-2 (Modified data. Copy the data built in the same model.)
B3			
B4			
B5			
B6			
B7			
B8			
B9			
BA			
BB to D5			Fixed data-1
D6			Fixed data-2 (Modified data. Copy the data built in the same model.)
D7			
D8			
D9			
DA			
DB			
DC			
DD			
DE to E5			Fixed data-1
E6			Fixed data-2
E7			Fixed data-1
E8	08	08	Serial No. input
E9	00	00	
EA	46	46	
EB	01	01	
EC	02	02	
ED	00	00	
EE	00	00	
EF	00	00	
F0 to F3			Fixed data-1
F4	00	00	Emergency memory address
F5	00	00	
F6	00	00	
F7	00	00	
F8	00	00	
F9	00	00	
FA	00	00	
FB	00	00	
FC	00	00	
FD	00	00	
FE	00	00	
FF	00	00	

Table. 5-3-3.

4. D Page Table

Note: Fixed data-1: Initialized data. (Refer to “1. Initializing the C, D, 8 Page Data”.)
Fixed data-2: Modified data. (Refer to “2. Modification of C, D, 8 Page Data”).

Address	Initial value		Remark
	NTSC	PAL	
00 to 0F			
10	00	00	Test mode
11 to 12			Fixed data-1
13			Fixed data-2
14			
15 to 19			Fixed data-1
1A			Fixed data-2 (Modified data. Copy the data built in the same model.)
1B			
1C			
1D			
1E			
1F			
20			
21			
22			
23			
24			Fixed data-1
25			Fixed data-2
26			Fixed data-1
27			Fixed data-2
28 to 2A			Fixed data-1
2B			Fixed data-2
2C			Fixed data-1
2D			Fixed data-2
2E			
2F			
30			
31 to 42			Fixed data-1
43			Fixed data-2
44 to 47			Fixed data-1
48	90	90	Battery end adj.
49	98	98	
4A to 4C			Fixed data-1
4D			Fixed data-2
4E			
4F to 50			Fixed data-1
51			Fixed data-2
52			
53			
54			
55 to 57			Fixed data-1
58			Fixed data-2
59			
5A to 5B			Fixed data-1
5C			Fixed data-2
5D to 64			Fixed data-1
65			Fixed data-2
66			
67			
68			

Address	Initial value		Remark
	NTSC	PAL	
69			Fixed data-2
6A to 83			Fixed data-1
84			Fixed data-2
85 to 86			Fixed data-1
87			Fixed data-2
88 to 8D			Fixed data-1
8E			Fixed data-2
8F			
90 to 9F			Fixed data-1
A0			Fixed data-2
A1			
A2	80	80	VCO adj. (LCD) (GV-D800/D800E)
A3	70	70	VCO adj. (LCD) (GV-D800E)
A4	80	80	V-COM adj. (LCD) (GV-D800/D800E)
A5	30	30	RGB AMP adj.(LCD) (GV-D800/D800E)
A6			Fixed data-1
A7	C0	C0	COM AMP adj.(LCD) (GV-D800/D800E)
A8	80	80	White balance adj. (LCD) (GV-D800/D800E)
A9	80	80	
AA	50	50	Contrast adj. (LCD) (GV-D800/D800E)
AB			Fixed data-1
AC			Fixed data-2 (Modified data. Copy the data built in the same model.)
AD			
AE			
AF			
B0			
B1			
B2 to B8			Fixed data-1
B9			Fixed data-2
BA			
BB to C3			Fixed data-1
C4			Fixed data-2
C5			Fixed data-1
C6			Fixed data-2
C7 to FF			Fixed data-1

Table. 5-3-4.

5. 8 Page Table

Note: Fixed data-1: Initialized data. (Refer to “1. Initializing the C, D, 8 Page Data”.)
Fixed data-2: Modified data. (Refer to “2. Modification of C, D, 8 Page Data”).

Address	Remark
00 to 20	Fixed data-1
21	Fixed data-2
22	Fixed data-1
23	Fixed data-2
24 to 98	Fixed data-1
99	Fixed data-2
9A to A2	Fixed data-1
A3	Fixed data-2
A4 to FF	Fixed data-1

Table. 5-3-5.

3-2-2. INITIALIZATION OF E, F, 7 PAGE DATA

1. Initializing the E, F, 7 Page Data

Note1: If "Initializing the E, F, 7 Page Data" is performed, all data of the E page, F page and 7 page will be initialized. (It is impossible to initialize a single page.)

Note2: If the E, F, 7 page data has been initialized, following adjustments need to be performed again.
1) Modification of E, F, 7 page data
2) Servo and RF system adjustments
3) Video system adjustments
4) IR transmitter adjustments

Adjusting page	F
Adjusting Address	10 to FF
Adjusting page	E
Adjusting Address	00 to FF
Adjusting page	7
Adjusting Address	00 to FF

Initializing Method:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data.
2	6	00		Set the following data. 55: GV-D200/D800 (NTSC) 51: GV-D200E/D800E (PAL)
3	6	01		Set the following data, and press PAUSE button. 55: GV-D200/D800 (NTSC) 51: GV-D200E/D800E (PAL)
4	6	02		Check that the data changes to "01".
5				Perform "Modification of E, F, 7 Page Data".

2. Modification of E, F, 7 Page Data

If the E, F, 7 page data has been initialized, change the data of the "Fixed data-2" address shown in the following table by manual input.

Modifying Method:

1) Before changing the data, select page: 0, address: 01, and set data: 01.
2) New data for changing are not shown in the tables because they are different in destination. When changing the data, copy the data built in the same model.
   Note: If copy the data built in the different model, the camcorder may not operate.
3) When changing the data, press the PAUSE button of the adjustment remote commander each time when setting new data to write the data in the non-volatile memory.
4) Check that the data of adjustment addresses is the initial value. If not, change the data to the initial value.

Processing after Completing Modification of E, F, 7 Page data

Order	Page	Address	Data	Procedure
1	2	00	29	Set the data
2	2	01	29	Set the data, and press the PAUSE button.

3. F Page Table

Note: Fixed data-1: Initialized data. (Refer to "1. Initializing the E, F, 7 Page Data".)
Fixed data-2: Modified data. (Refer to "2. Modification of E, F, 7 Page Data").

Address	Initial value		Remark
	NTSC	PAL	
00 to 0F			
10	00	00	Emergency memory address
11	00	00	
12	00	00	
13	00	00	
14	00	00	
15	00	00	
16	00	00	
17	00	00	
18	00	00	
19	00	00	
1A	00	00	
1B	00	00	
1C			Fixed data-2
1D to 22			Fixed data-1
23			Fixed data-2
24			
25			Fixed data-1
26			Fixed data-2
27 to 2B			Fixed data-1
2C			Fixed data-2
2D			Fixed data-1
2E			Fixed data-2
2F to 32			Fixed data-1
33			Fixed data-2
34 to 3A			Fixed data-1
3B			Fixed data-2
3C to 4C			Fixed data-1
4D	8C	8C	27MHz origin osc. adj.
4F to 5D			Fixed data-1
5E			Fixed data-2
5F			
60 to 61			Fixed data-1
62	0A	0A	Hi8/Std8 switching position adj.
63	00	00	
64	83	83	CAP FG duty adj.
65	40	40	Hi8/Std8 AFC fo adj.
66			Fixed data-1
67	69	65	Hi8/Std8 Y output level setting
68	64	72	Hi8/Std8 chroma output level setting
69 to 7A			Fixed data-1
7B	A6	A6	Hi8/Std8 1.5MHz deviation adj.
7C	94	94	Hi8/Std8 1.7MHz deviation adj.
7D	80	80	Hi8/Std8 AFM BPF adj.
7E	41	41	IR video deviation adj.
7F	33	33	IR audio deviation adj.
80	C7	C7	IR video carrier freq. adj.
81 to 8A			Fixed data-1
8B			Fixed data-2
8C to 93			Fixed data-1

Address	Initial value		Remark
	NTSC	PAL	
94	Fixed data-2		
95 to 97	Fixed data-1		
98	Fixed data-2		
99 to 9B	Fixed data-1		
9C	Fixed data-2		
9D to 9F	Fixed data-1		
A0	Fixed data-2		
A1 to AA	Fixed data-1		
AB	Fixed data-2		
AC to CA	Fixed data-1		
CB	Fixed data-2		
CC			
CD			
CE	Fixed data-1		
CF	Fixed data-2		
D0 to D2	Fixed data-1		
D3	Fixed data-2		
D4 to DE	Fixed data-1		
DF	Fixed data-2		
E0	Fixed data-1		
E1	Fixed data-2		
E2 to F2	Fixed data-1		
F3	Fixed data-2		
F4 to F5	Fixed data-1		
F6	Fixed data-2		
F7 to FF	Fixed data-1		

Table. 5-3-6.

4. E Page Table

Note: Fixed data-1: Initialized data. (Refer to “1. Initializing the E, F, 7 Page Data”.)
Fixed data-2: Modified data. (Refer to “2. Modification of E, F, 7 Page Data”).

Address	Remark
00 to 01	Fixed data-1
02	Fixed data-2
03	
04	
05	
06 to 07	Fixed data-1
08	Fixed data-2
09 to 0D	Fixed data-1
0E	Fixed data-2 (Modified data. Copy the data built in the same model.)
0F	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
1A to 27	Fixed data-1
28	Fixed data-2
29 to 33	Fixed data-1
34	Fixed data-2
35	Fixed data-1
36	Fixed data-2
37	Fixed data-1
38	Fixed data-2
39	
3A to 3C	Fixed data-1
3D	Fixed data-2
3E to 42	Fixed data-1
43	Fixed data-2
44	Fixed data-1
45	Fixed data-2
46	
47	
48	
49 to 50	Fixed data-1
51	Fixed data-2
52 to 56	Fixed data-1
57	Fixed data-2
58 to 5B	Fixed data-1
5C	Fixed data-2
5D	
5E	
5F to 71	Fixed data-1
72	Fixed data-2
73 to 7B	Fixed data-1

Address	Remark
7C	Fixed data-2
7D	
7E	
7F	Fixed data-1
80	Fixed data-2
81	
82 to 8B	Fixed data-1
8C	Fixed data-2
8D	
8E	
8F	Fixed data-1
90	Fixed data-2
91 to 93	Fixed data-1
94	Fixed data-2
95 to FF	Fixed data-1

Table. 5-3-7.

5. 7 Page Table

Note: Fixed data-1: Initialized data.
(Refer to “1. Initializing the E, F, 7 Page Data”.)
Fixed data-2: Modified data.
(Refer to “2. Modification of E, F, 7 Page Data”).

Address	Remark
00 to 05	Fixed data-1
06	Fixed data-2
07	
08 to 25	Fixed data-1
26	Fixed data-2
27 to FF	Fixed data-1

Table. 5-3-8.

3-3. SYSTEM CONTROL SYSTEM ADJUSTMENT

1. Serial No. Input

1-1. Company ID Input

Write the company ID in the EEPROM (nonvolatile memory).

Page	C
Address	E8, E9, EA, EB, EC

Input method:

1) Select page: 0, address: 01, and set data: 01.
2) Input the following data to page: C, addresses: E8 to EC.
   Note: Press the PAUSE button of the adjustment remote commander each time to set the data.

Address	Data
E8	08
E9	00
EA	46
EB	01
EC	02

3) Select page: 0, address: 01, and set data: 00.

1-2. Serial No. Input

Write the serial No. and model code in the EEPROM (nonvolatile memory). Convert the serial No. on the name plate from decimal to hexadecimal, and write in the EEPROM.

Page	C
Address	ED, EE, EF

Input method:

1) Select page: 0, address: 01, and set data: 01.
2) Read the serial No. on the name plate, and take it as D_1.
   Example: If the serial No. is 77881.
   D_1=77881
3) Obtain D_2 and H_1 corresponding to D_1 from Table 5-3-9.
   Example: If D_1 is “77881”.
   D_2=D_1–65536=12345
   H_1=FE

D_1 (Decimal)	D_2 (Decimal)	H_1 (Hexadecimal) (Service model code)
000001 to 065535	D_1	FE
065536 to 131071	D_1–65536	FE
131072 to 196607	D_1–131072	FE

Table 5-3-9.

4) Input H_1 to page: C, address: ED. (Model code input)
   Example: If H_1 is “FE”.
   Select page: C, address: ED, set data: FE, and press the PAUSE button.
5) Obtain the maximum decimal not exceeding D_2 from Table 5-3-10, and take this as D_3.
   Example: If D_2 is “12345”.
   D_3=12288
6) Obtain the hexadecimal corresponding to D_3 from Table 5-3-10, and take this as H_3.
   Example: If D_3 is “12288”.
   H_3=3000
7) Obtain the difference D_4 between D_2 and D_3. (Decimal calculation, $0 \leqq D_4 \leqq 255$)
   D_4= D_2–D_3
   Example: If D_2 is “12345” and D_3 is “12288”.
   D_4=12345–12288=57
8) Convert D_4 to hexadecimal, and take this as H_4.
   (Refer to “Hexadecimal-decimal conversion table” in “5-4. Service Mode”.)
   Example: If D_4 is “57”.
   H_4=39
9) Input the upper 2 digits of H_3 to page: C, address: EE.
   Example: If H_3 is “3000”.
   Select page: C, address: EE, set data: 30, and press the PAUSE button.
10) Input H_4 to page: C, address: EF.
    Example: If H_4 is “39”.
    Select page: C, address: EF, set data: 39, and press the PAUSE button.
11) Select page: 0, address: 01, and set data: 00.

Decimal (D_3)	Hexa-decimal (H_3)	Decimal (D_3)	Hexa-decimal (H_3)	Decimal (D_3)	Hexa-decimal (H_3)	Decimal (D_3)	Hexa-decimal (H_3)	Decimal (D_3)	Hexa-decimal (H_3)	Decimal (D_3)	Hexa-decimal (H_3)	Decimal (D_3)	Hexa-decimal (H_3)	Decimal (D_3)	Hexa-decimal (H_3)
0	0000	8192	2000	16384	4000	24576	6000	32768	8000	40960	A000	49152	C000	57344	E000
256	0100	8448	2100	16640	4100	24832	6100	33024	8100	41216	A100	49408	C100	57600	E100
512	0200	8704	2200	16896	4200	25088	6200	33280	8200	41472	A200	49664	C200	57856	E200
768	0300	8960	2300	17152	4300	25344	6300	33536	8300	41728	A300	49920	C300	58112	E300
1024	0400	9216	2400	17408	4400	25600	6400	33792	8400	41984	A400	50176	C400	58368	E400
1280	0500	9472	2500	17664	4500	25856	6500	34048	8500	42240	A500	50432	C500	58624	E500
1536	0600	9728	2600	17920	4600	26112	6600	34304	8600	42496	A600	50688	C600	58880	E600
1792	0700	9984	2700	18176	4700	26368	6700	34560	8700	42752	A700	50944	C700	59136	E700
2048	0800	10240	2800	18432	4800	26624	6800	34816	8800	43008	A800	51200	C800	59392	E800
2304	0900	10496	2900	18688	4900	26880	6900	35072	8900	43264	A900	51456	C900	59648	E900
2560	0A00	10752	2A00	18944	4A00	27136	6A00	35328	8A00	43520	AA00	51712	CA00	59904	EA00
2816	0B00	11008	2B00	19200	4B00	27392	6B00	35584	8B00	43776	AB00	51968	CB00	60160	EB00
3072	0C00	11264	2C00	19456	4C00	27648	6C00	35840	8C00	44032	AC00	52224	CC00	60416	EC00
3328	0D00	11520	2D00	19712	4D00	27904	6D00	36096	8D00	44288	AD00	52480	CD00	60672	ED00
3584	0E00	11776	2E00	19968	4E00	28160	6E00	36352	8E00	44544	AE00	52736	CE00	60928	EE00
3840	0F00	12032	2F00	20224	4F00	28416	6F00	36608	8F00	44800	AF00	52992	CF00	61184	EF00
4096	1000	12288	3000	20480	5000	28672	7000	36864	9000	45056	B000	53248	D000	61440	F000
4352	1100	12544	3100	20736	5100	28928	7100	37120	9100	45312	B100	53504	D100	61696	F100
4608	1200	12800	3200	20992	5200	29184	7200	37376	9200	45568	B200	53760	D200	61952	F200
4864	1300	13056	3300	21248	5300	29440	7300	37632	9300	45824	B300	54016	D300	62208	F300
5120	1400	13312	3400	21504	5400	29696	7400	37888	9400	46080	B400	54272	D400	62464	F400
5376	1500	13568	3500	21760	5500	29952	7500	38144	9500	46336	B500	54528	D500	62720	F500
5632	1600	13824	3600	22016	5600	30208	7600	38400	9600	46592	B600	54784	D600	62976	F600
5888	1700	14080	3700	22272	5700	30464	7700	38656	9700	46848	B700	55040	D700	63232	F700
6144	1800	14336	3800	22528	5800	30720	7800	38912	9800	47104	B800	55296	D800	63488	F800
6400	1900	14592	3900	22784	5900	30976	7900	39168	9900	47360	B900	55552	D900	63744	F900
6656	1A00	14848	3A00	23040	5A00	31232	7A00	39424	9A00	47616	BA00	55808	DA00	64000	FA00
6912	1B00	15104	3B00	23296	5B00	31488	7B00	39680	9B00	47872	BB00	56064	DB00	64256	FB00
7168	1C00	15360	3C00	23552	5C00	31744	7C00	39936	9C00	48128	BC00	56320	DC00	64512	FC00
7424	1D00	15616	3D00	23808	5D00	32000	7D00	40192	9D00	48384	BD00	56576	DD00	64768	FD00
7680	1E00	15872	3E00	24064	5E00	32256	7E00	40448	9E00	48640	BE00	56832	DE00	65024	FE00
7936	1F00	16128	3F00	24320	5F00	32512	7F00	40704	9F00	48896	BF00	57088	DF00	65280	FF00

Table 5-3-10.

2. Battery End Adjustment

Set the battery end voltage.
If the voltage is incorrect, the life of the battery will shorten.
The image at the battery end will also be rough.

Mode	Playback
Signal	Arbitrary
Measurement Point	Display data of page: 2, address: 5D
Measuring Instrument	Adjustment remote commander
Adjustment Page	D
Adjustment Address	48, 49

Connection:

1) Connect the regulated power supply and the digital voltmeter to the battery terminal as shown in Fig. 5-3-4.

Preparations before adjustments:

1) Adjust the output voltage of the regulated power supply so that the digital voltmeter display is 6.1 ± 0.1Vdc.
2) Turn off the power supply.
3) Turn on the HOLD switch of the adjustment remote commander.
4) Turn on the power supply.
5) Load a cassette, and set to the playback mode.

Adjusting method:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data.
2				Decrease the output voltage of the regulated power supply so that the digital voltmeter display is 5.30 ± 0.01Vdc.
3	2	5D		Read the data, and this data is named Dref.
4	D	48	Dref	Set the data, and press PAUSE button.
5				Convert Dref to decimal notation, and obtain Dref'. (Note1)
6				Calculate D_{49}' using following equation. (decimal calculation) D_{49}'=Dref'+8
7				Convert D_{49}' to decimal notation, and obtain D_{49}. (Note1)
8	D	49	D_{49}	Set the data, and press PAUSE button.
9	0	01	00	Set the data.

Note 1: Refer to Table 5-4-1. "Hexadecimal-decimal conversion table" of "5-4.Service mode".

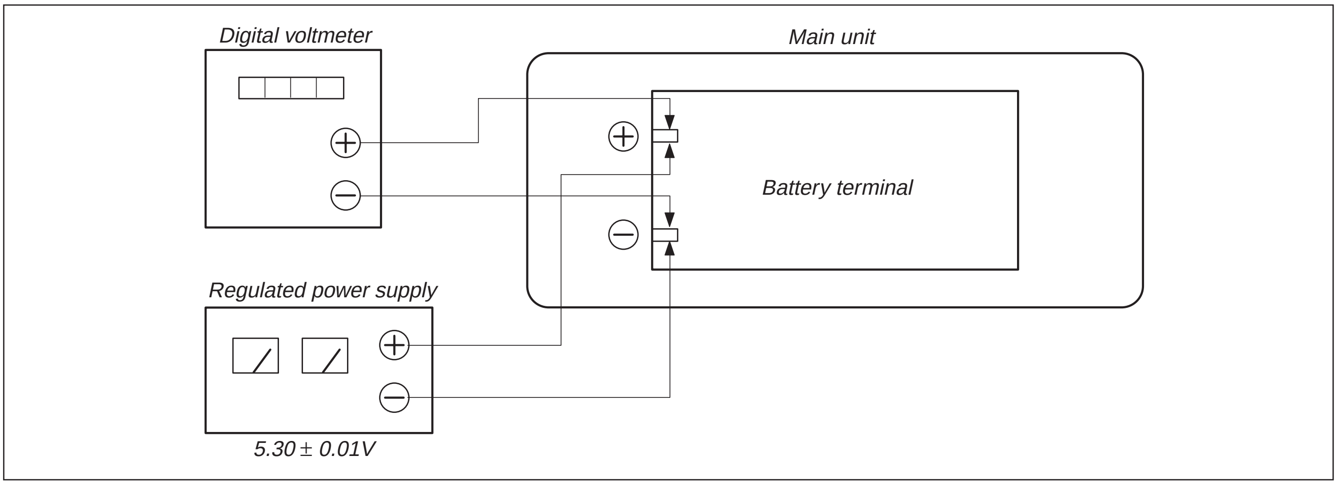


Fig. 5-3-4.

3-4. SERVO AND RF SYSTEM ADJUSTMENT

Before perform the servo and RF system adjustments, check that the specified value of "27MHz Origin Oscillation Adjustment" of "VIDEO SYSTEM ADJUSTMENT" is satisfied.

Adjusting Procedure:

1. REEL FG adjustment
2. PLL fo & LPF fo pre-adjustment
3. Switching position adjustment
4. AGC center level
5. APC & AEQ adjustment
6. PLL fo & LPF fo final adjustment
7. Hi8/Standrd8 switching position adjustment
8. Cap FG duty adjustment

1. REEL FG Adjustment (VC-250 Board)

Compensates the dispersion of the hall elements.

Measurement Point	Display data of page: 3, address: 03
Measuring Instrument	Adjustment remote commander
Adjustment Page	C
Adjustment Address	17, 30
Specified Value	00 or 01 or 04 or 05

Adjusting method:

Order	Page	Address	Data	Procedure
1				Close the cassette compartment without inserting a cassette.
2	0	01	01	Set the data.
3	3	01	1C	Set the data, and press PAUSE button.
4	3	02		Check that the data changes to "00",
5	3	03		Check that the data is "00" or "01" or "04" or "05". (Note)
6	0	01	00	Set the data.

Note: If the data is other value, adjustment has errors. (Take an appropriate remedial measures according to the errors referring to the following table.)

Data	Contents of defect
02, 03, 06, 07	T reel is defective
08, 09, 0C, 0D	S reel is defective
0A, 0B, 0E, 0F	S reel and T reel are defective

2. PLL fo & LPF fo Pre-Adjustment (VC-250 Board)

Mode	VTR stop
Measurement Point	Display data of page: 3, address: 03
Measuring Instrument	Adjustment remote commander
Adjustment Page	C
Adjustment Address	1F, 20, 22, 29
Specified Value	Bit2, bit3 and bit6 are "0"

Adjusting method:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data.
2	3	01	30	Set the data, and press PAUSE button.
3	3	02		Check that the data changes to "00".
4	3	03		Check that bit2, bit3 and bit6 are "0". (Note)
5	0	01	00	Set the data.

Note: If bit2, bit3 or bit6 is "1", there are errors.
For the error contents, see the following table. (For the bit values, refer to "5-4. SERVICE MODE", "4-3. 3. Bit value discrimination".)

Bit value of page: 3, address: 03 data	Error contents
bit 2 = 1	PLL fo final adjustment is defective
bit 3 = 1	PLL fo final adjustment is defective
bit 6 = 1	LPF fo is defective

If bit 2 or bit 3 is "1", select page: C, address: 21, set the following data, and press the PAUSE button, and repeat steps 2 to 4.

	Setting data
When the data of page: C, address: 21 is "CA".	CE
When the data of page: C, address: 21 is "CE".	C6
When the data of page: C, address: 21 is "C6".	D2
When the data of page: C, address: 21 is "D2"	C2

3. Switching Position Adjustment (VC-250 Board)

To obtain normal playback waveform output during the Digital8 playback mode, adjust the switching position.

Mode	VTR playback
Signal	SW/OL reference tape (WR5-2D)
Measurement Point	Display data of page: 3, address: 03
Measuring Instrument	Adjustment remote commander
Adjustment Page	C
Adjustment Address	10, 11, 12, 13
Specified Value	00

Adjusting method:

Order	Page	Address	Data	Procedure
1				Insert the SW/OL reference tape and enter the VTR STOP mode.
2	0	01	01	Set the data.
3	3	21		Check that the data is “02”. (Note1)
4	3	01	0D	Set the data, and press PAUSE button.
5	3	02		Check that the data changes to “00”.
6	3	03		Check that the data is “00”. (Note2)
7	C	10		Check that the data is other than “EE”. (Note3)
8	0	01	00	Set the data.

Note 1: If the data of page: 3, address: 21 is “72”, the tape top being played. After playing the tape for 1 to 2 seconds, perform step 4 and higher.

Note 2: If bit 0 of the data is “1”, the A channel is defective. If bit 1 is “1”, the B channel is defective. Contents of the defect is written into page: C, addresses: 10 and 12. See the following table. (For the bit values, refer to “5-4. SERVICE MODE”, “4-3. 3. Bit value discrimination”.)

Note 3: If the data is “EE” rewind the tape and repeat steps 1 to 7.

When the A channel is defective

Data of page:C, address:10	Contents of defect
EE	Writing into EEPROM (IC4502) is defective
E8	Adjustment data is out of range
E7	No data is returned from IC3301 (CAIN)

When the B channel is defective

Data of page:C, address:12	Contents of defect
EE	Writing into EEPROM (IC4502) is defective
E8	Adjustment data is out of range
E7	No data is returned from IC3301 (CAIN)

4. AGC Center Level and APC & AEQ Adjustment

4-1. Preparations before adjustments

Mode	Recording
Signal	Color bar

Note: Use a Hi8 MP tape.

Adjusting method:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data.
2	8	2A	C8	Set the data.
3				Record the color bar signal for three minutes.

4-2. AGC Center Level Adjustment (VC-250 Board)

Mode	Playback
Signal	Recorded signal at “Preparations before adjustments”
Measurement Point	Pin ⑯ of CN933 (RF MON) (Note 1) Ext. trigger: Pin ⑬ of CN933 (DV RFSWP)
Measuring Instrument	Oscilloscope
Adjustment Page	C
Adjustment Address	1E
Specified Value	The data of page: 3, address: 03 is “00”

Note 1: Connect a 75Ω resistor between Pin ⑯ and Pin ⑥ (GND) of CN933. 75Ω resistor (Parts code: 1-247-804-11)

Adjusting method:

Order	Page	Address	Data	Procedure
1				Playback the recorded signal at “Preparations before adjustments”
2	0	01	01	Set the data.
3	2	2E	01	Set the data.
4	3	33	08	Set the data.
5				Confirm that the playback RF signal is stable. (Fig. 5-3-5.)
6	3	01	23	Set the data, and press PAUSE button.
7	3	02		Check that the data is “00”.
8	3	03		Check that the data is “00”. (Note2)
9				Perform “APC & AEQ Adjustment”.

Note 2: If the data of page: 3, address: 03 is other than “00”, adjustment has errors.

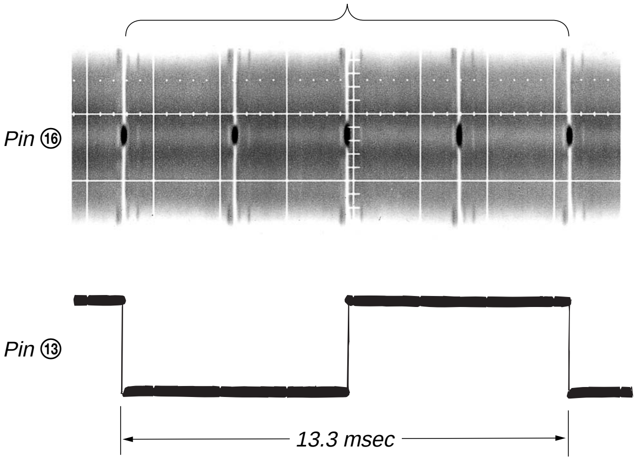


Fig. 5-3-5.

4-3. APC & AEQ Adjustment (VC-250 Board)

Mode	Playback
Signal	Recorded signal at “Preparations before adjustments”
Measurement Point	Pin ⑯ of CN933 (RF MON) (Note 1) Ext. trigger: Pin ⑬ of CN933 (DV RF SWP)
Measuring Instrument	Oscilloscope
Adjustment Page	C
Adjustment Address	18, 19, 1B, 1C, 21, 2C
Specified Value	The data of page: 3, address: 03 is “00”

Note 1: Connect a 75Ω resistor between Pin ⑯ and Pin ⑥ (GND) of CN933.
75Ω resistor (Parts code: 1-247-804-11)

Note 2: The “AGC Center Level Adjustment” must have already been completed before starting this adjustment.

Adjusting method:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data.
2	C	18	25	Set the data, and press PAUSE button.
3	C	19	25	Set the data, and press PAUSE button.
4	C	1B	25	Set the data, and press PAUSE button.
5	C	1C	25	Set the data, and press PAUSE button.
6	C	21	CA	Set the data, and press PAUSE button.
7	C	2C	03	Set the data, and press PAUSE button.
8				Playback the recorded signal at “Preparations before adjustments”
9	2	2E	01	
10	3	33	08	Set the data.
11				Confirm that the playback RF signal is stable. (Fig. 5-3-6.)
12	3	01	07	Set the data, and press PAUSE button.
13	3	02		Check that the data changes from “07” to “00” in about 20 seconds after pressing PAUSE button.
14	3	03		Check that the data is “00”. (Note3)
15				Perform “Processing after Completing Adjustments”.

Note 3: If the data is other than “00”, adjustment has errors.

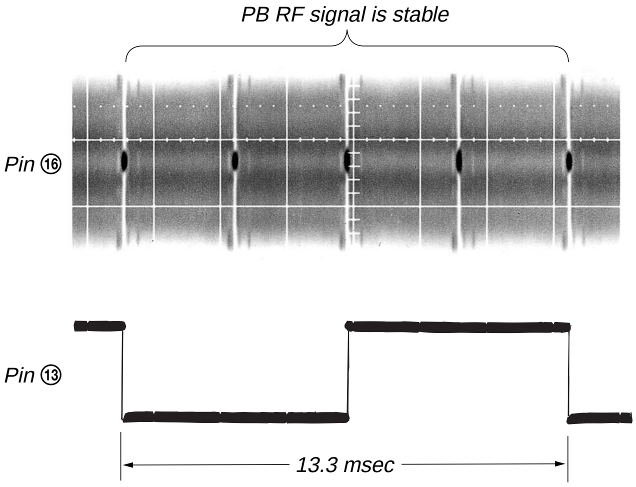


Fig. 5-3-6.

4-4. Processing after Completing Adjustments

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data.
2	2	2E	00	Set the data.
3	3	33	00	Set the data.
4	8	2A	00	Set the data, and press PAUSE button.
5	0	01	00	Set the data.

5. PLL fo & LPF fo Final Adjustment (VC-250 Board)

Mode	VTR stop
Signal	Arbitrary
Measurement Point	Display data of page: 3, address: 03
Measuring Instrument	Adjustment remote commander
Adjustment Page	C
Adjustment Address	1F, 20, 22, 29
Specified Value	Bit2, bit3 and bit6 are “0”

Adjusting method:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data.
2	3	01	30	Set the data, and press PAUSE button.
3	3	02		Check that the data changes to “00”.
4	3	03		Check that bit2, bit3 and bit6 are “00”. (Note)
5	0	01	00	Set the data.

Note: If bit2, bit3 or bit 6 of the data is “1”, there are errors. For the error contents, see the following table. (For the bit values, refer to “5-4. SERVICE MODE”, “4-3. 3. Bit value discrimination”.)

Bit value of page: 3, address: 03	Error contents
bit 2 = 1	PLL fo final adjustment is defective
bit 3 = 1	PLL fo final adjustment is defective
bit 6 = 1	LPF fo is defective

6. Hi8/Standard8 Switching Position Adjustment (VC-250 Board)

If deviated in this case causes switching noise or jitter on the Hi8/Standard8 mode played back screen.

Mode	Playback
Signal	Hi8/Standard8 alignment tape: For tracking adjustment (WR5-1NP(NTSC))(WR5-1CP(PAL))
Measurement Point	CH1: Pin ⑧ of CN933 (VC RF SWP) CH2: Pin ⑤ of CN933 (PB RF)
Measuring Instrument	Oscilloscope
Adjustment Page	F
Adjustment Address	62, 63
Specified Value	t1=0 ± 10 µsec

Adjusting Method:

Order	Page	Address	Data	Procedure
1				Set to the stop mode.
2	0	01	01	Set the data.
3	F	22	C0	Set the data, and press PAUSE button.
4	2	0E	02	Set the data.
5				Set to the playback mode.
6	F	62		Change the data and minimize “t1”. (Coarse adjustment)
7	F	62		Press PAUSE button
8	F	63		Change the data and adjust so that the switching position (t1) becomes the specified value. (Fine adjustment)
9	F	63		Press PAUSE button
10	F	22	80	Set the data, and press PAUSE button.
11	2	0E	00	Set the data.
12	0	01	00	Set the data.

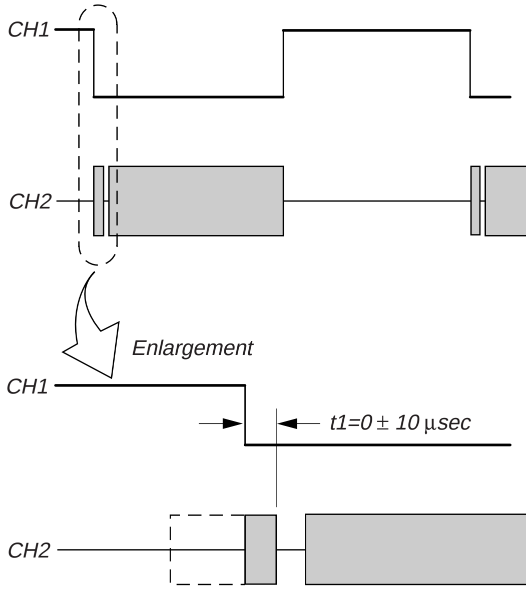


Fig. 5-3-7.

7. CAP FG Offset Adjustment (VC-250 board)

Set the Cap FG signal duty cycle to 50% to establish an appropriate capstan servo. If deviated, the uneven rotation of capstan and noise can occur in the Hi8/Standard8 LP mode.

Mode	Playback
Signal	Hi8/standard 8 alignment tape : For checking operation (WR5-5NSP(NTSC)) (WR5-5CSP(PAL))
Measurement Point	Pin ⑮ of CN933 (CAP FG)
Measuring Instrument	Oscilloscope
Adjustment Page	F
Adjustment Address	64
Specified value	Duty = 50 ± 1 %

Adjusting method:

Order	Page	Address	Data	Procedure
1				Set to the stop mode.
2	0	01	01	Set the data.
3	2	0E	02	Set the data.
4				Set to the playback mode.
5	6	01	81	Set the data, and press PAUSE button.
6	3	02		Check that the data changes to "01".
7	6	01	00	Set the data, and press PAUSE button.
8				Check that Duty of CAP FG signal satisfies the specified value. If not, repeat steps 5 to 8.
9	2	0E	00	Set the data.
10	0	01	00	Set the data.

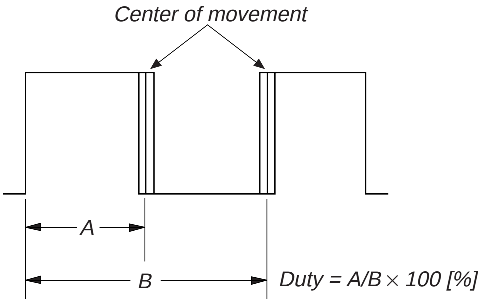


Fig. 5-3-8.

3-5. VIDEO SYSTEM ADJUSTMENTS

Switch setting:

DEMO MODE (Menu setting) ....OFF

1. 27MHz Origin Oscillation Adjustment (VC-250 board)

Set the frequency of the clock for synchronization.
If deviated, the synchronization will be disrupted and the color will become inconsistent.

Mode	VTR stop
Signal	Not required
Measurement Point	Pin ⑤ of IC1505
Measuring Instrument	Frequency counter
Adjustment Page	F
Adjustment Address	4D
Specified Value	f=13500000 ± 68Hz

Adjusting method:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data.
2	F	4D		Change the data and set the frequency (f) to the specified value.
3	F	4D		Press PAUSE button.
4	0	01	00	Set the data.

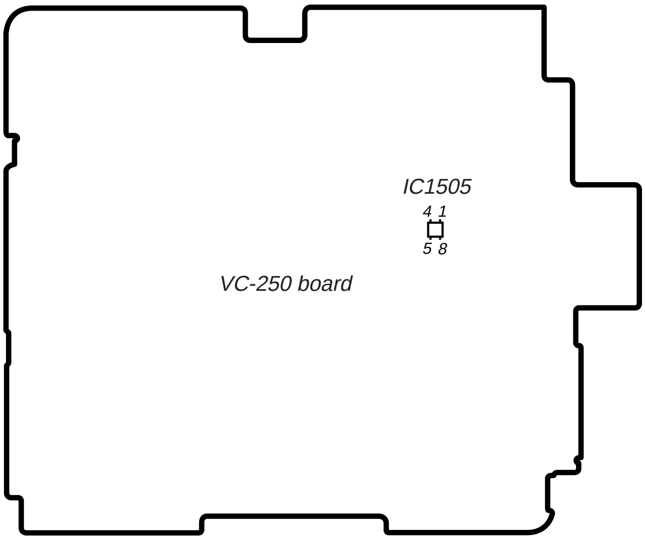


Fig. 5-3-9.

2. Chroma BPF fo Adjustment (VC-250 Board)

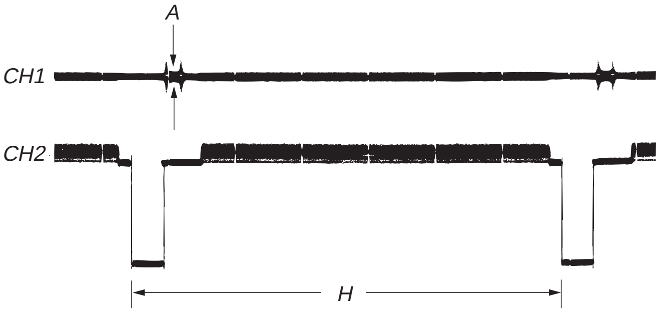
Set the center frequency of IC3701 chroma band-pass filter.

Mode	VTR stop
Signal	No signal
Measurement Point	CH1: Chroma signal terminal of S VIDEO OUT jack (75Ω terminated) CH2: Y signal terminal of S VIDEO OUT jack (75Ω terminated)
Measuring Instrument	Oscilloscope
Adjustment Page	C
Adjustment Address	28
Specified Value	A = 100mVp-p or less B = 200mVp-p or more

Adjusting method:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data.
2	D	11	10	Set the data, and press PAUSE button.
3				Check that the burst signal (B) is output to the chroma signal terminal of S VIDEO OUT jack.
4	3	0C	04	Set the data, and press PAUSE button.
5	C	28		Change the data for minimum amplitude of the burst signal level (A). (The data should be “00” to “07”.)
6	C	28		Press PAUSE button.
7	3	0C	00	Set the data, and press PAUSE button.
8				Check that the burst signal level (B) satisfies the specified value.
9	D	11	00	Set the data, and press PAUSE button.
10	0	01	00	Set the data.

When the data of page: 3, address: 0C, is 04:



When the data of page: 3, address: 0C, is 00:

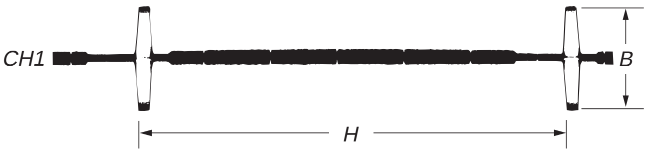


Fig. 5-3-10.

3. S VIDEO OUT Y Level Adjustment (VC-250 Board)

Mode	VTR stop
Signal	No signal
Measurement Point	Y signal terminal of S VIDEO OUT jack (75Ω terminated)
Measuring Instrument	Oscilloscope
Adjustment Page	C
Adjustment Address	25
Specified Value	A = 1000 ± 20mV

Adjusting method:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data.
2	D	11	10	Set the data, and press PAUSE button.
3	3	0C	02	Set the data, and press PAUSE button.
4	C	25		Change the data and set the Y signal level (A) to the specified value.
5	C	25		Press PAUSE button.
6	3	0C	00	Set the data, and press PAUSE button.
7	D	11	00	Set the data, and press PAUSE button.
8	0	01	00	Set the data.

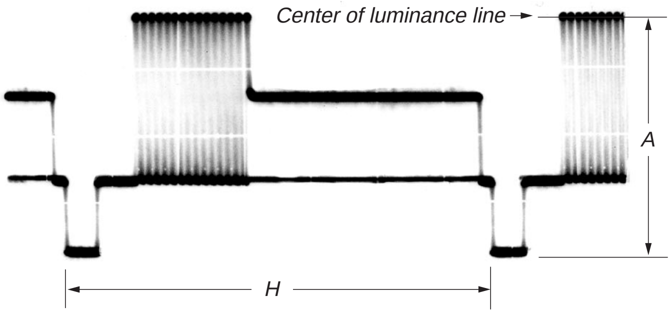


Fig. 5-3-11.

4. S VIDEO OUT Chroma Level Adjustment (VC-250 Board)

Mode	VTR stop
Signal	No signal
Measurement Point	Chroma signal terminal of S VIDEO OUT jack (75Ω terminated) External trigger: Y signal terminal of S VIDEO OUT jack
Measuring Instrument	Oscilloscope
Adjustment Page	C
Adjustment Address	26, 27
Specified Value	Cr level: A = 714 ± 14mV(NTSC) A = 700 ± 14mV(PAL) Cb level: B = 714 ± 14mV(NTSC) B = 700 ± 14mV(PAL) Burst level: C = 286 ± 6mV(NTSC) C = 300 ± 6mV(PAL)

Adjusting method:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data.
2	D	11	10	Set the data, and press PAUSE button.
3	3	0C	02	Set the data, and press PAUSE button.
4	C	26		Change the data and set the Cr signal level (A) to the specified value.
5	C	26		Press PAUSE button.
6	C	27		Change the data and set the Cb signal level (B) to the specified value.
7	C	27		Press PAUSE button.
8				Check that the burst signal level (C) is satisfied the specified value.
9	3	0C	00	Set the data, and press PAUSE button.
10	D	11	00	Set the data, and press PAUSE button.
11	0	01	00	Set the data.

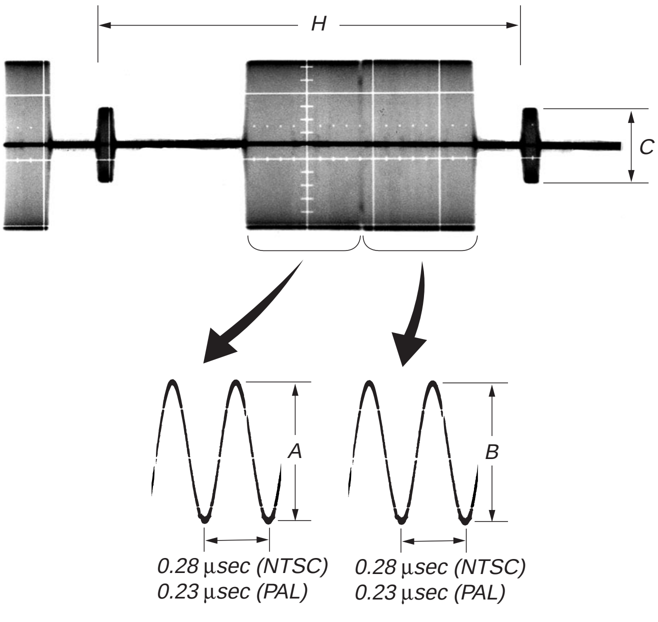


Fig. 5-3-12.

5. VIDEO OUT Y, Chroma Level Check (VC-250 Board)

Mode	VTR stop
Signal	No signal
Measurement Point	VIDEO OUT jack (75Ω terminated)
Measuring Instrument	Oscilloscope
Specified Value	Sync level: A = 293 ± 18mV(NTSC) A = 307 ± 18mV(PAL) Burst level: B = 286 ± 18mV(NTSC) B = 300 ± 18mV(PAL)

Adjusting method:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data.
2	D	11	10	Set the data, and press PAUSE button.
3	3	0C	02	Set the data, and press PAUSE button.
4				Check that the sync signal level (A) satisfies the specified value.
5				Check that the burst signal level (B) satisfies the specified value.
6	3	0C	00	Set the data, and press PAUSE button.
7	D	11	00	Set the data, and press PAUSE button.
8	0	01	00	Set the data.

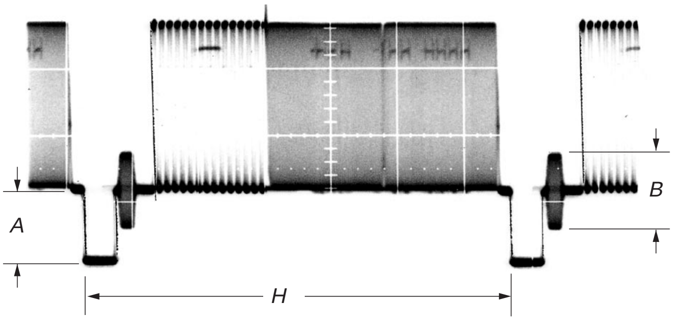


Fig. 5-3-13.

6. Hi8/Standard8 Y/C Output Level Setting (VC-250 Board)

Set the Y/C signal output level during the Hi8/Standard8 playback mode.

Mode	VTR stop
Signal	No signal
Adjustment Page	F
Adjustment Address	67, 68

Adjusting method:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data.
2	D	10	02	Set the data, and press PAUSE button.
3	6	6F	01	Set the data.
4	6	7F		Check that the data. When the data is “00”, proceed to step 8. When the data is “03”, proceed to step 5.
5	F	67		Set the following data, and press PAUSE button. 69: GV-D200/D800 (NTSC) 65: GV-D200E/D800E (PAL)
6	F	68		Set the following data, and press PAUSE button. 64: GV-D200/D800 (NTSC) 72: GV-D200E/D800E (PAL)
7				Proceed to step 10.
8	F	67		Set the following data, and press PAUSE button. A0: GV-D200/D800 (NTSC) A0: GV-D200E/D800E (PAL)
9	F	68		Set the following data, and press PAUSE button. AA: GV-D200/D800 (NTSC) B8: GV-D200E/D800E (PAL)
10	6	6F	00	Set the data.
11	D	10	00	Set the data, and press PAUSE button.
12	0	01	00	Set the data.

7. Hi8/standard 8mm AFC fo Adjustment (VC-250 board)

Adjust the pull-in range of the clock generator (IC2201) for A/D conversion during Hi8/standard 8mm playback.

Mode	VTR stop
Signal	No signal
Measurement Point	Pin ② of CN933 (AFC f0)
Measuring Instrument	Digital voltmeter
Adjustment Page	F
Adjustment Address	65
Specified Value	A=1.40 ± 0.05Vdc Or the data of page: 6, address: 6E is "7C" to "84"

Adjusting method:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data.
2	D	10	02	Set the data, and press PAUSE button.
3	3	0D	04	Set the data, and press PAUSE button.
4	6	63	04	Set the data.
5	6	6F	01	Set the data.
6	6	01	C5	Set the data, and press PAUSE button.
7	6	02		Check that the data is "00".
8	6	6E		Check that the data satisfies the specifies value. Or check that the DC voltage (A) satisfies the specifies value.
9	3	0D	00	Set the data, and press PAUSE button.
10	6	01	00	Set the data, and press PAUSE button.
11	6	63	00	Set the data.
12	6	6F	00	Set the data.
13	D	10	00	Set the data, and press PAUSE button.
14	0	01	00	Set the data.

3-6. IR TRANSMITTER ADJUSTMENTS

Adjust using the IR receiver jig (J-6082-383-A).

Note: If the distance between the IR receiver jig and the VCR is below 1m, cover the LASER LINK emitter with a ND filter. (For example, when the distance is 30cm to 50cm, cover the LASER LINK emitter with a ND filter 1.0.)

Switch setting:

LASER LINK .... ON (Red LED is lit)

1. IR Video Carrier Frequency Adjustment (VC-250 board)

Mode	VTR stop
Signal	Arbitrary
Measurement Point	Pin ⑤ of CN003 of IR receiver jig (RF) (Or Pin ⑯ of IC3901 of VC-250 board)
Measuring Instrument	Frequency counter
Adjustment Page	F
Adjustment Address	80
Specified Value	f = 11.85 ± 0.05 MHz

Connection of Equipment:

Connect the measuring device as shown in the following figure, and adjust.

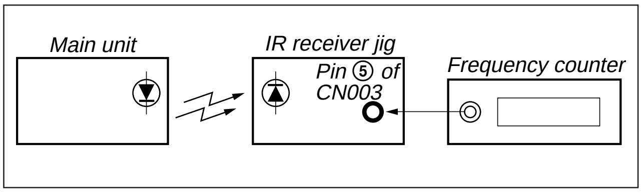


Fig. 5-3-14.

Adjusting method:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data.
2	3	0C	08	Set the data, and press PAUSE button.
3	F	80		Change the data, and set the video carrier frequency (f) to the specified value.
4	F	80		Press PAUSE button.
5	3	0C	00	Set the data, and press PAUSE button.
6	0	01	00	Set the data.

2. IR Video Deviation Adjustment (VC-250 board)

Mode	VTR stop
Signal	Arbitrary
Measurement Point	VIDEO OUT terminal of IR receiver jig (Terminated at 75Ω)
Measuring Instrument	Oscilloscope
Adjustment Page	F
Adjustment Address	7E
Specified Value	A = 0.82 ± 0.05 V

Connection of Equipment:

Connect the measuring device as shown in the following figure, and adjust.

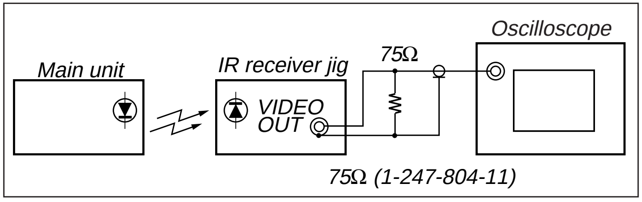


Fig. 5-3-15.

Adjusting method:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data.
2	3	0C	01	Set the data, and press PAUSE button.
3	F	7E		Change the data, set the video signal amplitude (A) to the specified value.
4	F	7E		Press PAUSE button.
5	3	0C	00	Set the data, and press PAUSE button.
6	0	01	00	Set the data.

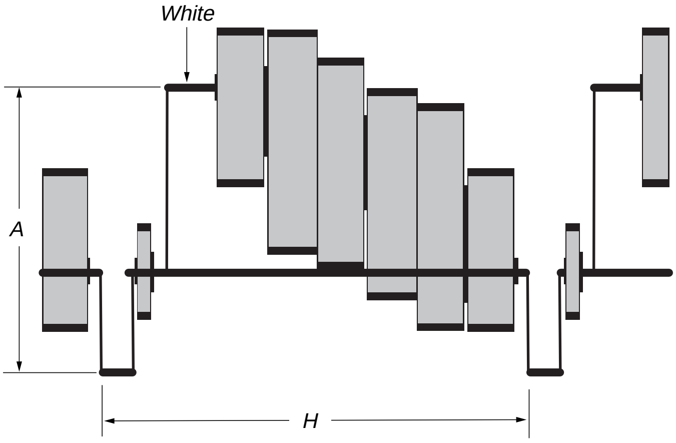


Fig. 5-3-16.

3. IR Audio Deviation Adjustment (VC-250 board)

Mode	VTR stop
Signal	Video : No signal Audio : –400Hz, –7.5dBs, Audio left and right terminal of AUDIO/VIDEO jack
Measurement Point	AUDIO L terminal and AUDIO R terminal of IR receiver jig (Terminated at 47kΩ)
Measuring Instrument	Audio level meter
Adjustment Page	F
Adjustment Address	7F
Specified Value	Signal level: –7.5 ± 1.0 dBs Level difference of L and R: Below 2dB

Connection of Equipment:
Connect the measuring device as shown in the following figure, and adjust.

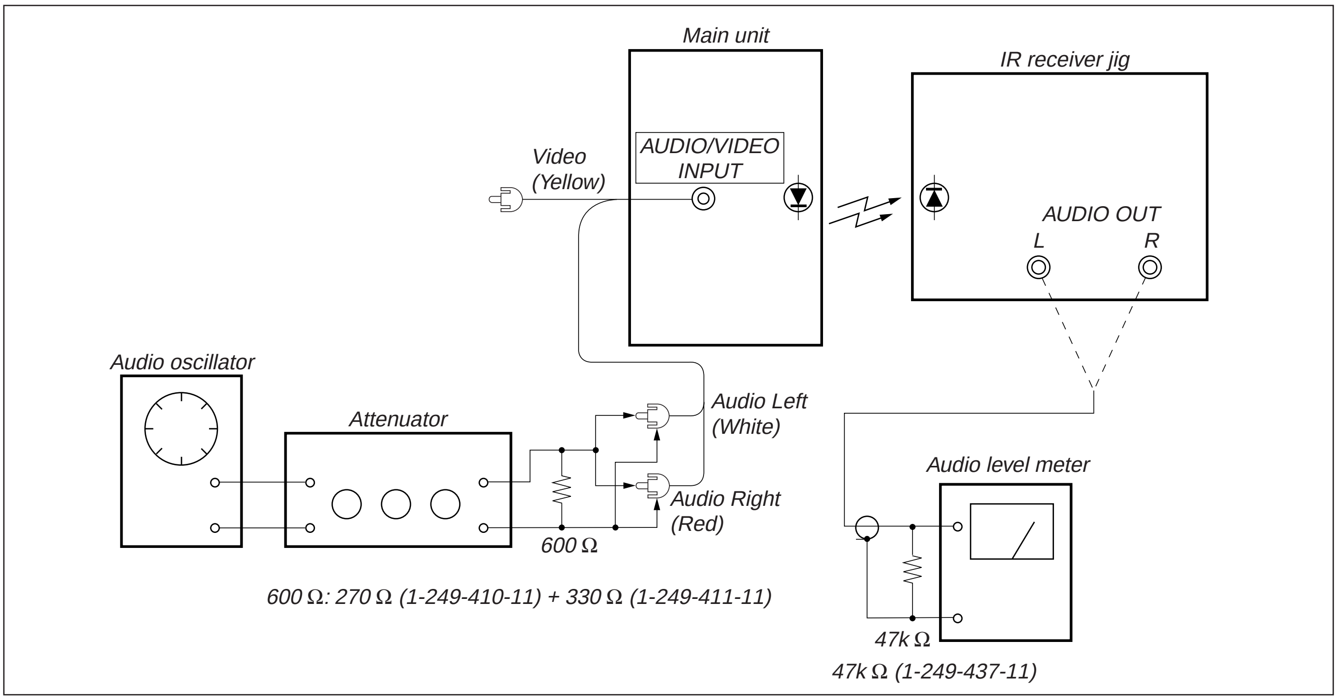

Main unit
IR receiver jig
Video
(Yellow)
AUDIO/VIDEO
INPUT
AUDIO OUT
L
R
Audio oscillator
Attenuator
Audio Left
(White)
Audio Right
(Red)
Audio level meter
600 Ω
600 Ω: 270 Ω (1-249-410-11) + 330 Ω (1-249-411-11)
47k Ω
47k Ω (1-249-437-11)

Fig. 5-3-17.

Adjusting method:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data.
2				Connect the audio level meter to the AUDIO L terminal of the IR receiver jig.
3	F	7F		Change the data and set the 400Hz audio signal level to the specified value.
4	F	7F		Press PAUSE button.
5				Connect the audio level meter to the AUDIO R terminal of the IR receiver jig.
6	F	7F		Check that the 400Hz audio signal level is within the specified value. If outside, repeat from step 2.
7	0	01	00	Set the data.

3-7. AUDIO SYSTEM ADJUSTMENTS

[Connecting the measuring instruments for the audio]

Connect the audio system measuring instruments in addition to the video system measuring instruments as shown in Fig. 5-3-18.

[Adjustment Procedure]

1) Hi8/Standard8 AFM BPF fo adjustment
2) Hi8/Standard8 AFM 1.5MHz deviation adjustment
3) Hi8/Standard8 AFM 1.7MHz deviation adjustment
4) Digital8 playback level check
5) Overall level characteristics check
6) Overall distortion check
7) Overall noise level check
8) Overall separation check

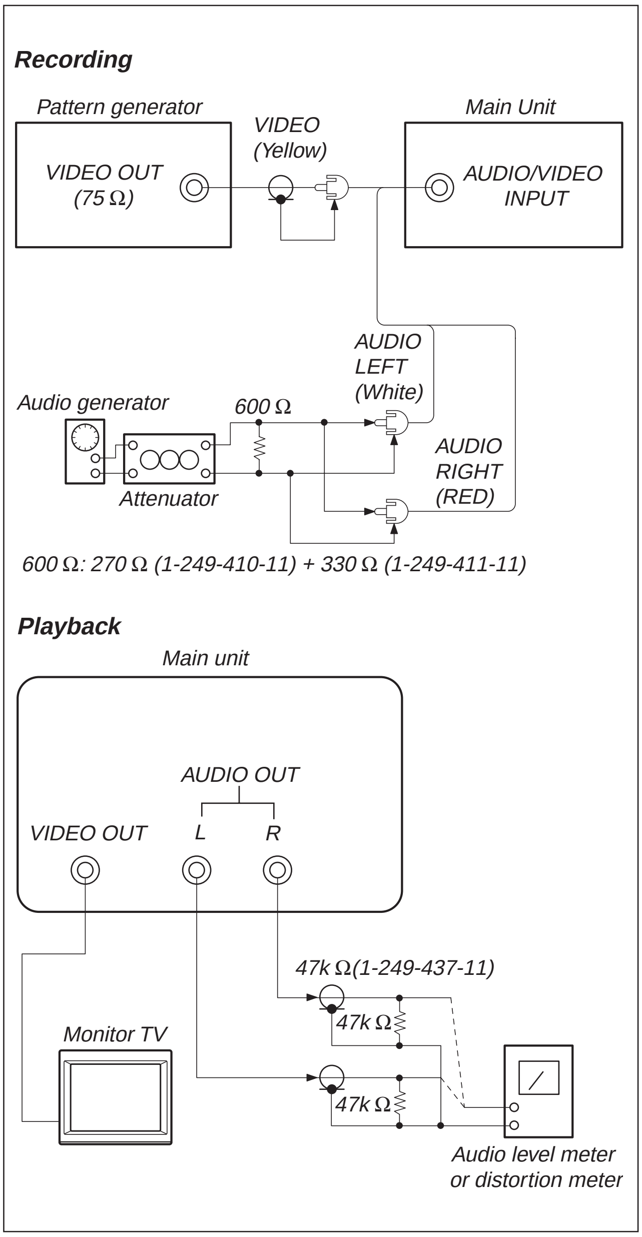

Recording
Pattern generator
VIDEO OUT (75 Ω)
VIDEO (Yellow)
Main Unit
AUDIO/VIDEO INPUT
AUDIO LEFT (White)
Audio generator
600 Ω
AUDIO RIGHT (RED)
Attenuator
600 Ω: 270 Ω (1-249-410-11) + 330 Ω (1-249-411-11)
Playback
Main unit
AUDIO OUT
VIDEO OUT
L
R
47k Ω(1-249-437-11)
47k Ω
47k Ω
Monitor TV
Audio level meter or distortion meter

Fig. 5-3-18.

1. Hi8/Standard8 AFM BPF fo Adjustment (VC-250 board)

Sets the BPF passing frequency of IC760 so that the AFM signal can separate from the playback RF signal properly. If deviated. the mono/stereo mode will be differentiated incorrectly, and noises and distortions will increase during high volume playback.

Mode	Playback
Signal	Hi8/Standard8 alignment tape: For BPF adjustment (WR5-11NS (NTSC)) (WR5-11CS (PAL))
Measurement Point	AUDIO OUT jack LEFT or RIGHT
Measuring Instrument	Distortion meter
Adjustment Page	F
Adjustment Address	7D
Specified Value	The Main and Sub channel distortion rate should be almost the same (within ± 1%) and minimum.

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Set the Hi-Fi SOUND switch (menu display) to “2”.
3) Select page: F, address: 7D, change the data and minimize the distortion rate.
4) Press the PAUSE button.
5) Set the Hi-Fi SOUND switch (menu display) to “1”.
6) Select page: F, address: 7D, change the data and minimize the distortion rate.
7) Press the PAUSE button.
8) Repeat steps 2) to 7) and set the data of address: 7D so that the distortions rates when the Hi-Fi SOUND switch is set to “2” and set to “1” respectively are almost the same and minimum.
9) Press the PAUSE button.
10) Select page: 0, address: 01, and set data: 00.
11) Set the Hi-Fi SOUND switch to “STEREO”.

2. Hi8/Standard8 AFM 1.5 MHz Deviation Adjustment (VC-250 board)

Adjust to the optimum 1.5MHz audio FM signal deviation.
If the adjustment is not correct, its playback level will differ from that of other units.

Mode	Playback
Signal	Hi8/Standard8 alignment tape: For checking AFM stereo operation Monoscope section (WR5-9NS (NTSC)) (WR5-9CS (PAL))
Measurement Point	AUDIO OUT jack LEFT or RIGHT
Measuring Instrument	Audio level meter
Adjustment Page	F
Adjustment Address	7B
Specified Value	–7.5 ± 2.0dBs

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Set the Hi-Fi SOUND switch (menu display) to "1".
3) Select page: F, address: 7B, change the data and set the 400Hz signal level to the specified value.
4) Press the PAUSE button.
5) Set the Hi-Fi SOUND switch (menu display) to "STEREO".
6) Select page: 0, address: 01, and set data: 00.

3. Hi8/Standard8 AFM 1.7 MHz Deviation Adjustment (VC-250 board)

Adjust to the optimum 1.7MHz audio FM signal deviation.
If improper, this causes deteriorated separation (with stereo signal).

Mode	Playback
Signal	Hi8/Standard8 alignment tape: For checking AFM stereo operation Monoscope section (WR5-9NS (NTSC)) (WR5-9CS (PAL))
Measurement Point	AUDIO OUT jack LEFT or RIGHT
Measuring Instrument	Oscilloscope
Adjustment Page	F
Adjustment Address	7C
Specified Value	–7.5 ± 2.0dBs

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Set the Hi-Fi SOUND switch (menu display) to "2".
3) Select page: F, address: 7C, change the data and set the 1kHz signal level to the specified value.
4) Press the PAUSE button.
5) Set the Hi-Fi SOUND switch (menu display) to "STEREO".
6) Select page: 0, address: 01, and set data: 00.

4. Digital8 Playback Level Check

Mode	Playback
Signal	Digital8 alignment tape: For audio operation check (WR5-3ND (NTSC)) (WR5-3CD (PAL))
Measurement Point	AUDIO OUT jack LEFT or RIGHT
Measuring Instrument	Audio level meter and frequency counter
Specified Value	32 kHz mode: 1 kHz, +3.0 ± 2.0dBs 48 kHz mode: 1 kHz, +3.0 ± 2.0dBs 44.1 kHz mode: The 7.35kHz signal level during EMP OFF is +2.0 ± 2.0dBs. The 7.35kHz signal level during EMP ON is –6 ± 2 dB from the signal level during EMP OFF.

Checking Method:

1) Check that the playback signal level is the specified value.

5. Overall Level Characteristics Check

Mode	Recording and playback
Signal	400Hz, –7.5dBs signal: Audio terminal left and right of AUDIO/ VIDEO INPUT jack
Measurement Point	AUDIO OUT jack LEFT or RIGHT
Measuring Instrument	Audio level meter
Specified Value	–7.5 ± 3.0dBs

Checking Method:

1) Input the 400Hz, –7.5dBs signal in the audio terminal left and right of AUDIO/VIDEO INPUT jack.
2) Record the signal.
3) Playback the recorded section.
4) Check that the 400Hz signal level is the specified value.

6. Overall Distortion Check

Mode	Recording and playback
Signal	400Hz, –7.5dBs signal: Audio terminal left and right of AUDIO/ VIDEO INPUT jack
Measurement Point	AUDIO OUT jack LEFT or RIGHT
Measuring Instrument	Audio distortion meter
Specified Value	Below 0.4% (200Hz to 6kHz BPF ON)

Checking Method:

1) Input the 400Hz, –7.5dBs signal in the audio terminal left and right of AUDIO/VIDEO INPUT jack.
2) Record the signal.
3) Playback the recorded section.
4) Check that the distortion is the specified value.

7. Overall Noise Level Check

Mode	Recording and playback
Signal	No signal: Audio terminal left and right of AUDIO/VIDEO INPUT jack
Measurement Point	AUDIO OUT jack LEFT or RIGHT
Measuring Instrument	Audio level meter
Specified Value	Below –45dBs (IHF-A filter ON, 20kHz LPF ON)

Checking Method:

1) Connect the audio terminal left of AUDIO/VIDEO INPUT jack and its ground terminal with a jumper wire.
2) Connect the audio terminal right of AUDIO/VIDEO INPUT jack and its ground terminal with a jumper wire.
3) Record the signal.
4) Playback the recorded section.
5) Check that the noise level is the specified value.
6) Remove the jumper wires.

8. Overall Separation Check

Mode	Recording and playback
Signal	No signal: Audio terminal <left> [right] of AUDIO/VIDEO INPUT jack 400Hz, –7.5dBs signal: Audio terminal <right> [left] of AUDIO/ VIDEO INPUT jack
Measurement Point	AUDIO OUT jack <LEFT> [RIGHT]
Measuring Instrument	Audio level meter
Specified Value	Below –40dBs

< > : Left channel check
[ ] : Right channel check

Checking Method:

1) Connect the audio terminal <left> [right] of AUDIO/VIDEO INPUT jack and its ground terminal with a jumper wire.
2) Input the 400Hz, –7.5dBs signal in the audio terminal <right> [left] of AUDIO/VIDEO INPUT jack.
3) Record the signal.
4) Playback the recorded section.
5) Check that the signal level of the AUDIO OUT <LEFT> [RIGHT] jack is the specified value.
6) Remove the jumper wires.

3-8. LCD SYSTEM ADJUSTMENT (GV-D800/D800E)

Note 1: The back light (fluorescent tube) is driven by a high voltage AC power supply. Therefore, do not touch the back light holder to avoid electrical shock.

Note 2: When replacing the LCD unit, be careful to prevent damages caused by static electricity.

Note 3: Set the LCD BRIGHT to the center.
Set the LCD COLOR (Menu display) to the center.

[Adjusting connector]

Most of the measuring points for adjusting the LCD system are concentrated in CN5502 of the PD-130 board. Connect the measuring instruments via the multi CPC jig (J-6082-311-A). The following table shows the Pin No. and signal name of CN5502.

Pin No.	Signal Name	Pin No.	Signal Name
1	VB	2	XVD OUT
3	VG	4	PANEL COM
5	VR	6	SH/CA
7	C SYNC/HD	8	XHD OUT
9	GND	10	GND

Table. 5-3-11.

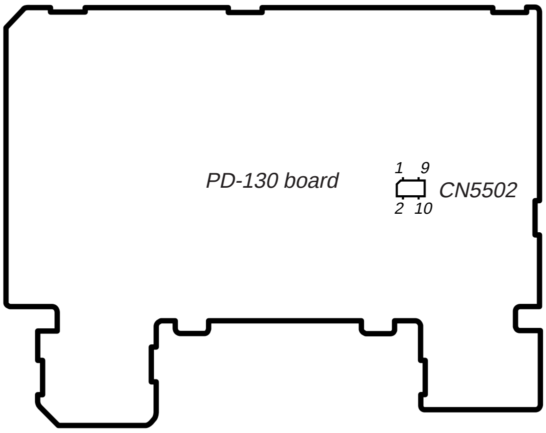


Fig. 5-3-19.

1. LCD Initial Data Input (1)

Mode	VTR stop
Signal	No signal
Adjustment Page	C
Adjustment Address	AB to BA

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Select page: C, and input the data in the following table.
   Note: To write in the non-volatile memory (EEPROM), press the PAUSE button of the adjustment remote commander each time to set the data.
3) Select page: 0, address: 01, and set data: 00.

Address	Data	Remark
AB	53	Fixed data
AC	00	Fixed data
AD	90	Fixed data
AE	CB	Fixed data
AF	6C	Fixed data
B0	2C	Fixed data
B1	00	Fixed data
B2	00	Fixed data
B3	20	Fixed data
B4	0A	Fixed data
B5	24	Fixed data
B6	1A	Fixed data
B7	0F	Fixed data
B8	17	Fixed data
B9	21	Fixed data
BA	23	Fixed data

Table. 5-3-12.

2. LCD Initial Data Input (2)

Mode	VTR stop
Signal	No signal
Adjustment Page	D
Adjustment Address	A0 to B1

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Select page: D, and input the data in the following table.
   Note: To write in the non-volatile memory (EEPROM), press the PAUSE button of the adjustment remote commander each time to set the data.
3) Select page: 0, address: 01, and set data: 00.

Address	Data	Remark
A0	7D	Fixed data
A1	A6	Fixed data
A2	80	VCO adj.
A3	70	Fixed data
A4	80	V-COM adj.
A5	30	RGB AMP adj.
A6	00	Fixed data
A7	C0	COM AMP adj.
A8	80	White balance adj.
A9	80	White balance adj.
AA	50	Contrast adj.
AB	00	Fixed data
AC	33	Fixed data
AD	14	Fixed data
AE	9F	Fixed data
AF	1F	Fixed data
B0	FC	Fixed data
B1	FF	Fixed data

Table. 5-3-13.

3. VCO Adjustment (PD-130 board)

Set the VCO free-run frequency. If deviated, the LCD screen will be blurred.

Mode	VTR stop
Signal	No signal
Measurement Point	Pin ⑧ of CN5502 (XHD OUT)
Measuring Instrument	Frequency counter
Adjustment Page	D
Adjustment Address	A2 (NTSC) A2, A3 (PAL)
Specified Value	f = 15734 ± 30Hz (NTSC) f = 15625 ± 30Hz (PAL)

Note 1: NTSC: GV-D800
PAL: GV-D800E

Adjusting method:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data.
2	D	A2		Change the data and set the VCO frequency (f) to the specified value.
3	D	A2		Press PAUSE button.
4				Only for NTSC model, proceed to step 10.
5	D	A2		Read the data, and this data is named D_{A2}.
6				Convert D_{A2} to decimal notation, and obtain D_{A2}'. (Note2)
7				Calculate D_{A3}' using following equations (Decimal calculation) When $D_{A2}' \geqq 23$ $D_{A3}' = D_{A2}' - 23$ When $D_{A2}' < 23$ $D_{A3}' = 00$
8				Convert D_{A3}' to a hexadecimal number, and obtain D_{A3}. (Note2)
9	D	A3	D_{A3}	Set the data, and press PAUSE button.
10	0	01	00	Set the data.

Note 2: Refer to “Table 5-4-1. Hexadecimal-decimal Conversion Table”.

4. RGB AMP Adjustment (PD-130 board)

Set the D range of the RGB decoder used to drive the LCD to the specified value. If deviated, the LCD screen will become blackish or saturated (whitish).

Mode	VTR stop
Signal	No signal
Measurement Point	Pin ③ of CN5502 (VG) External trigger: Pin ④ of CN5502 (PANEL COM)
Measuring Instrument	Oscilloscope
Adjustment Page	D
Adjustment Address	A5
Specified Value	A = 3.59 ± 0.05V

Note: Press the DISPLAY button and erase the screen indicators.

Adjusting method:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data.
2	D	A5		Change the data and set the voltage (A) between the reversed waveform pedestal and non-reversed waveform pedestal to the specified value. (The data should be "00" to "3F".)
3	D	A5		Press PAUSE button.
4	0	01	00	Set the data.

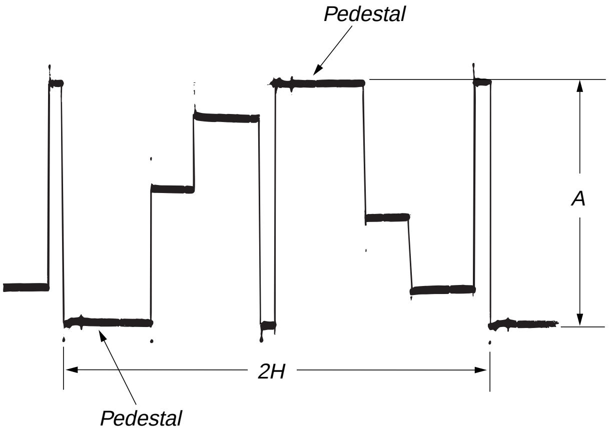


Fig. 5-3-20.

5. Contrast Adjustment (PD-130 board)

Set the level of the VIDEO signal for driving the LCD to the specified value. If deviated, the screen image will be blackish or saturated (whitish).

Mode	VTR stop
Signal	No signal
Measurement Point	Pin ③ of CN5502 (VG) External trigger: Pin ④ of CN5502 (PANEL COM)
Measuring Instrument	Oscilloscope
Adjustment Page	D
Adjustment Address	AA
Specified Value	A = 3.34 ± 0.07V

Adjusting method:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data.
2	D	AA		Change the data and set the voltage (A) between the 100 IRE and 0 IRE (pedestal) to the specified value. (The data should be "00" to "7F".)
3	D	AA		Press PAUSE button.
4	0	01	00	Set the data.

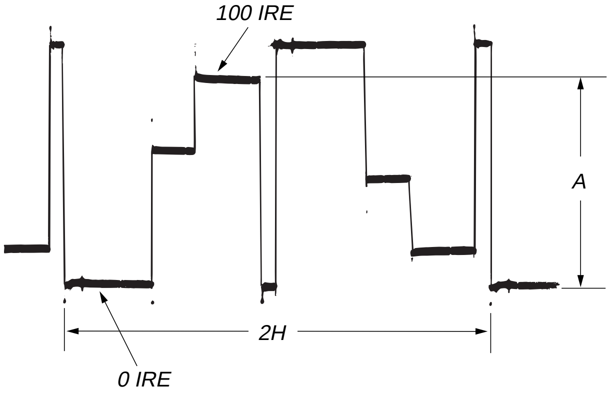


Fig. 5-3-21.

6. COM AMP Adjustment (PD-130 board)

Set the common electrode drive signal level of LCD to the specified value.

Mode	VTR stop
Signal	No signal
Measurement Point	Pin ④ of CN5502 (PANEL COM)
Measuring Instrument	Oscilloscope
Adjustment Page	D
Adjustment Address	A7
Specified Value	A = 6.33 ± 0.05Vdc

Adjusting method:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data.
2	D	A7		Change the data and set the PANEL COM signal level (A) to the specified value.
3	D	A7		Press PAUSE button.
4	0	01	00	Set the data.

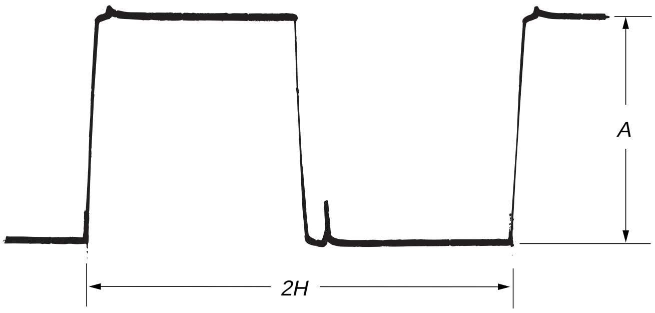


Fig. 5-3-22.

7. V-COM Adjustment (PD-130 board)

Set the DC bias of the common electrode drive signal of LCD to the specified value.

If deviated, the LCD display will move, producing flicker and conspicuous vertical lines.

Mode	VTR stop
Signal	No signal
Measurement Point	Check on LCD display
Measuring Instrument	
Adjustment Page	D
Adjustment Address	A4
Specified Value	The brightness difference between the section A and section B is minimum.

Note: Perform "RGB AMP Adjustment", "Contrast Adjustment" and "COM AMP Adjustment" before this adjustment.

Adjusting method:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data.
2	D	A4		Change the data so that the brightness of the section A and that of the section B is equal.
3	D	A4		Subtract 8 from the data.
4	D	A4		Press PAUSE button.
5	0	01	00	Set the data.

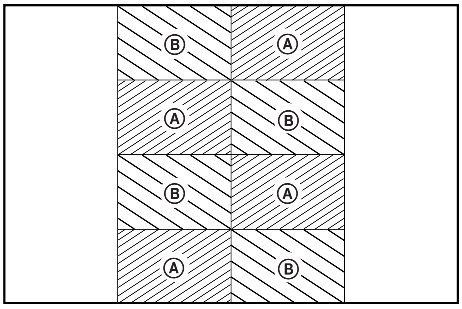


Fig. 5-3-23.

8. White Balance Adjustment (PD-130 board)

Correct the white balance.
If deviated, the reproduction of the LCD screen may degenerate.

Mode	VTR stop
Signal	No signal
Measurement Point	Check on LCD screen
Measuring Instrument	
Adjustment Page	D
Adjustment Address	A8, A9
Specified Value	The LCD screen should not be colored.

Note 1: Check the white balance only when replacing the following parts. If necessary, adjust them.

1. LCD panel
2. Light induction plate
3. IC5501

Adjusting method:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data.
2	D	A8	80	Set the data, and press PAUSE button.
3	D	A9	80	Set the data, and press PAUSE button.
4	D	A9		Check that the LCD screen is not colored. If not colored, proceed to step 10.
5	D	A8		Change the data so that the LCD screen is not colored.
6	D	A8		Press PAUSE button.
7	D	A9		Change the data so that the LCD screen is not colored.
8	D	A9		Press PAUSE button.
9	D	A9		If the LCD screen is colored, repeat steps 5 to 9.
10	0	01	00	Set the data.

5-4. SERVICE MODE

4-1. ADJUSTMENT REMOTE COMMANDER

The adjustment remote commander is used for changing the calculation coefficient in signal processing, EVR data, etc. The adjustment remote commander performs bi-directional communication with the unit using the remote commander signal line (LANC). The resultant data of this bi-directional communication is written in the non-volatile memory.

1. Using the Adjustment Remote Commander

1) Connect the adjustment remote commander to the LANC terminal.
2) Set the HOLD switch of the adjustment remote commander to "HOLD" (SERVICE position). If it has been properly connected, the LCD on the adjustment remote commander will display as shown in Fig. 5-4-1.

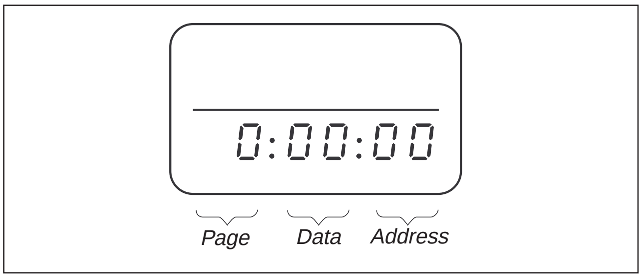


Fig. 5-4-1.

3) Operate the adjustment remote commander as follows.
   - Changing the page
     The page increases when the EDIT SEARCH+ button is pressed, and decreases when the EDIT SEARCH– button is pressed. There are altogether 16 pages, from 0 to F.

Hexadecimal notation	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
LCD Display	0	1	2	3	4	5	6	7	8	9	A	b	c	d	E	F
Decimal notation conversion value	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

   - Changing the address
     The address increases when the FF (▶▶) button is pressed, and decreases when the REW (◀◀) button is pressed. There are altogether 256 addresses, from 00 to FF.
   - Changing the data (Data setting)
     The data increases when the PLAY (▶) button is pressed, and decreases when the STOP (■) button is pressed. There are altogether 256 data, from 00 to FF.
   - Writing the adjustment data
     The PAUSE button must be pressed to write the adjustment data (C, D, E, F, 7, 8 page) in the nonvolatile memory. (The new adjusting data will not be recorded in the nonvolatile memory if this step is not performed.)
4) After completing all adjustments, turn off the main power supply (8.4 V) once.

2. Precautions Upon Using the Adjustment Remote Commander

Mishandling of the adjustment remote commander may erase the correct adjustment data at times. To prevent this, it is recommended that all adjustment data be noted down before beginning adjustments and new adjustment data after each adjustment.

4-2. DATA PROCESS

The calculation of the DDS display and the adjustment remote commander display data (hexadecimal notation) are required for obtaining the adjustment data of some adjustment items. In this case, after converting the hexadecimal notation to decimal notation, calculate and convert the result to hexadecimal notation, and use it as the adjustment data. Indicates the hexadecimal-decimal conversion table.

Hexadecimal-decimal Conversion Table

Lower digit of hexadecimal / Upper digit of hexadecimal	0	1	2	3	4	5	6	7	8	9	A (A)	B (b)	C (c)	② D (d)	E (E)	F (F)
0	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
2	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
3	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63
4	64	65	66	67	68	69	70	71	72	73	74	77	76	77	78	79
5	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95
6	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111
7	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127
8	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143
9	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159
A (A)	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175
① B (b)	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191
C (c)	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207
D (d)	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223
E (E)	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239
F (F)	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255

Note: The characters shown in the parenthesis ( ) shown the display on the adjustment remote commander.

(Example) If the DDS display or the adjustment remote commander shows BD (bd);
Because the upper digit of the adjustment number is B (b), and the lower digit is D (d), the meeting point "189" of ① and ② in the above table is the corresponding decimal number.

Table. 5-4-1.

4-3. SERVICE MODE

Additional note on adjustment

Note: After the completion of the all adjustments, cancel the service mode by either of the following ways.

1) After data on page: D and F is restored, unplug the main power supply and remove the coin lithium battery. (In this case, date and time and menu setting have been set by users are canceled. Perform resetting.)
2) After data on page: D and F is restored, select page: 0, address: 01, and return the data to 00. And when data on page:2 and 3 are changed, return data to the original condition.

1. Setting the Test Mode

Page F	Address 22

Data	Function
80	Normal
81	Test mode Various emergency prohibitions and releases Drum emergency, capstan emergency, loading motor emergency, reel emergency, tape top and end, DEW detection

Page D	Address 10

Data	Function
00	Normal
02	Forced VTR power ON

- Before setting the data , select page: 0, address: 01, and set data: 01.
- For page D and F, the data set will be recorded in the non-volatile memory by pressing the PAUSE button of the adjustment remote commander. In this case, take note that the test mode will not be exited even when the main power is turned off (8.4Vdc).
- After completing adjustments/repairs, be sure to return the data of page: D address: 10 to 00, and the data of page: F address: 22 to 80, and press the PAUSE button of the adjustment remote commander. And select page: 0, address: 01, and set data: 00.

2. Emergence Memory Address

2-1. C Page Emergence Memory Address

Page C	Address F4 to FF

Address	Contents
F4	EMG code when first error occurs
F6	Upper: MSW code when shift starts when first error occurs Lower: MSW code when first error occurs
F7	Lower: MSW code to be moved when first error occurs
F8	EMG code when second error occurs
FA	Upper: MSW code when shift starts when second error occurs Lower: MSW code when second error occurs
FB	Lower: MSW code to be moved when second error occurs
FC	EMG code when last error occurs
FE	Upper: MSW code when shift starts when last error occurs Lower: MSW code when last error occurs
FF	Lower: MSW code to be moved when last error occurs

When no error occurs in this unit, data “00” is written in the above addresses (F4 to FF). when first error occurs in the unit, the data corresponding to the error is written in the first emergency address (F4 to F7). In the same way, when the second error occurs, the data corresponding to the error is written in the second emergency address (F8 to FB).

Finally, when the last error occurs, the data corresponding to the error is written in the last emergency address (FC to FF).

Note : After completing adjustments, be sure to initialize the data of addresses F4 to FF to “00”.

Initializing method:

1) Select page: 0, address: 01, and set data: 01.
2) Select page: 3, address: 01, set data: 37, and press the PAUSE button.
3) Select page: 0, address: 01, and set data: 00.

2-2. F Page Emergence Memory Address

Note 1: Emergence of PB mode only.

Page F	Address 10 to 1B

Address	Contents
10	EMG code when first error occurs
12	Upper: MSW code when shift starts when first error occurs Lower: MSW code when first error occurs
13	Lower: MSW code to be moved when first error occurs
14	EMG code when second error occurs
16	Upper: MSW code when shift starts when second error occurs Lower: MSW code when second error occurs
17	Lower: MSW code to be moved when second error occurs
18	EMG code when last error occurs
1A	Upper: MSW code when shift starts when last error occurs Lower: MSW code when last error occurs
1B	Lower: MSW code to be moved when last error occurs

When no error occurs in this unit, data “00” is written in the above addresses (10 to 1B). when first error occurs in the unit, the data corresponding to the error is written in the first emergency address (10 to 13). In the same way, when the second error occurs, the data corresponding to the error is written in the second emergency address (14 to 17).

Finally, when the last error occurs, the data corresponding to the error is written in the last emergency address (18 to 1B).

Note 2: After completing adjustments, be sure to initialize the data of addresses 10 to 1B to “00”.

Initializing method:

1) Select page: 0, address: 01, and set data: 01.
2) Select page: F, address: 10, set data: 00, and press the PAUSE button.
3) Select address: 11 to 1B and set data “00” into them in the same way as in address: 10.
4) Select page: 0, address: 01, and set data: 00.

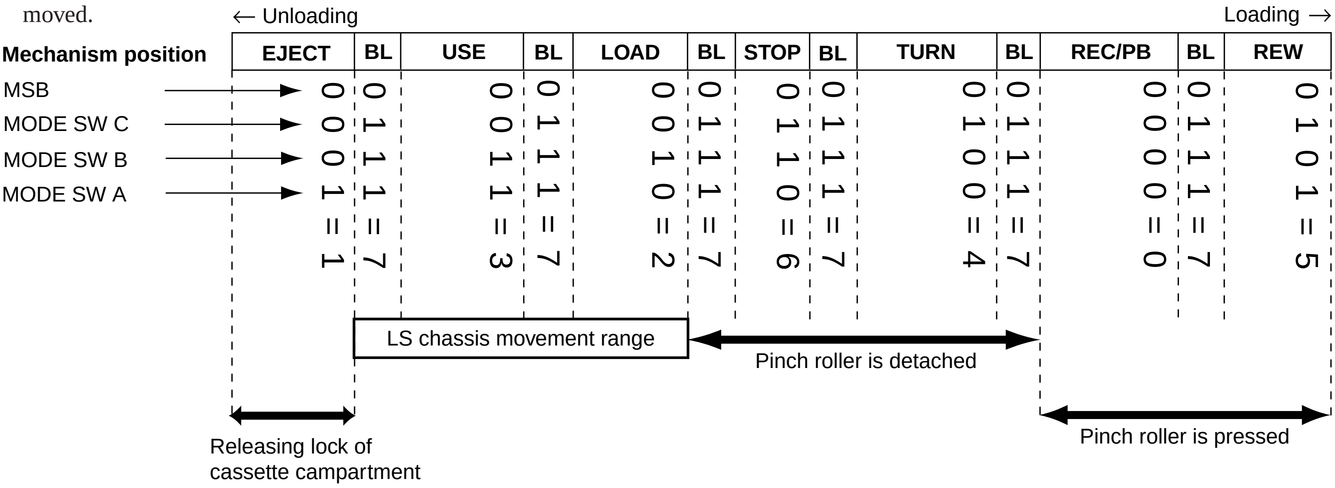
2-3. EMG Code (Emergency Code)

Codes corresponding to the errors which occur are written in C page, addresses F4, F8 and FC (or F page, addresses 10, 14 and 18). The type of error indicated by the code are shown in the following table.

Code	Emergency Type
00	No error
10	Loading motor emergency during loading
11	Loading motor emergency during unloading
22	T reel emergency during normal rotation
23	S reel emergency during normal rotation
24	T reel emergency (Short circuit between S reel terminal and T reel terminal)
30	FG emergency at the start up of the capstan
40	FG emergency at the start up of the drum
42	FG emergency during normal rotation of the drum

2-4. MSW Code

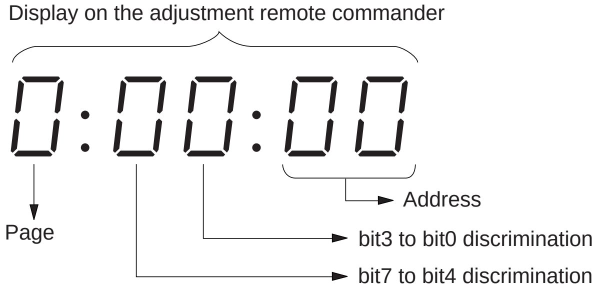
- The lower parts of the data of C page, addresses F6, FA and FE (or F page, addresses 12, 16 and 1A) represent the MSW codes (mode switch mechanism position) when errors occurs.
- The upper parts of the data of C page, addresses F6, FA and FE (or F page, addresses 12, 16 and 1A) represent, when the mechanism position is to be moved, the MSW codes at the start movement (when moving the loading motor).
- The lower parts of the data of C page, addresses F7, FB and FF (or F page, addresses 13, 17 and 1B) represent the MSW codes of the desired movement when the mechanism position is to be moved.


← Unloading
Loading →
Mechanism position
EJECT
BL
USE
BL
LOAD
BL
STOP
BL
TURN
BL
REC/PB
BL
REW
MSB
MODE SW C
MODE SW B
MODE SW A
0 0 0 1 = 1
0 1 1 1 = 7
0 0 1 1 = 3
0 1 1 1 = 7
0 0 1 0 = 2
0 1 1 1 = 7
0 1 1 0 = 6
0 1 1 1 = 7
0 1 0 0 = 4
0 1 1 1 = 7
0 0 0 0 = 0
0 1 1 1 = 7
0 1 0 1 = 5
LS chassis movement range
Pinch roller is detached
Releasing lock of cassette campartment
Pinch roller is pressed

Mechanism Position	MSW Code	Contents
EJECT	1	Position at which the cassette compartment lock is released. The mechanism will not move any further in the unloading direction.
BL	7	BLANC code. Between two codes. The mechanism will not be stopped by this code while it is operating.
USE	3	EJECT completion position. When the cassette is ejected, the mechanism will stop at this position.
LOAD	2	Code during loading/unloading. Code that is used while the LS chassis is moving.
STOP	6	Normal stop position. The pinch roller separates, the tension regulator returns, and the brakes of both reels turn on.
TURN	4	Position at which is used when the pendulum gear swings from S to T or from T to S.
REC/PB	0	PB, REC, CUE, REV, PAUSE, FF positions. The pinch roller is pressed and tension regulator is on.
REW	5	REW position. REW are carried at this position. The mechanism will not move any further in the loading direction.

3. Bit Value Discrimination

Bit values must be discriminated using the display data of the adjustment remote commander for the following items. Us the table below to discriminate if the bit value is “1” or “0”.


Display on the adjustment remote commander
0:00:00
Address
Page
bit3 to bit0 discrimination
bit7 to bit4 discrimination

(Example) If the remote commander display is “8E”, bit value from bit 7 to bit 4 can be discriminated from the column Ⓐ, and those from bit 3 to bit 0 from column Ⓑ.

	Display on the adjustment remote commander	Bit values			
		bit3 or bit7	bit2 or bit6	bit1 or bit5	bit0 or bit4
	0	0	0	0	0
	1	0	0	0	1
	2	0	0	1	0
	3	0	0	1	1
	4	0	1	0	0
	5	0	1	0	1
	6	0	1	1	0
	7	0	1	1	1
Ⓐ	8	1	0	0	0
	9	1	0	0	1
	A (A)	1	0	1	0
	B (b)	1	0	1	1
	C (C)	1	1	0	0
	D (d)	1	1	0	1
Ⓑ	E (E)	1	1	1	0
	F (F)	1	1	1	1

4. Switch check (1)

Page 2	Address 43

Bit	Function	When bit value = 1	When bit value = 0
0	POWER switch (FP-575 flexible S001)	OFF	ON
1			
2	Headphone jack (FP-246 flexible J002)	Used	Not used
3	EJECT switch (VC-250 board S4802)	OFF	ON
4	CC DOWN switch (Mechanism chassis)	OFF (UP)	ON (DOWN)
5	VIDEO OUTPUT jack (IO-68 board J102)	Used	Not used
6	S VIDEO OUTPUT jack (IO-68 board J103)	Not used	Used
7			

Using method:
1) Select page: 2, address: 43.
2) By discriminating the bit value of display data, the state of the switch can be discriminated.

5. Switch check (2)

Page 2	Address 48

Bit	Function	When bit value = 1	When bit value = 0
0	AUDIO OUTPUT LEFT jack (IO-68 board J102)	Used	Not used

Using method:
1) Select page: 2, address: 48.
2) By discriminating the bit value of display data, the state of the switch can be discriminated.

6. Switch check (3)

Page 2	Address 49

Bit	Function	When bit value = 1	When bit value = 0
4	AUDIO OUTPUT RIGHT jack (IO-68 board J102)	Used	Not used
5	AUDIO/VIDEO INPUT jack (FP-246 flexible J001)	Used	Not used
6			
7	S VIDEO INPUT jack (IO-68 board J103)	Not used	Used

Using method:
1) Select page: 2, address: 49.
2) By discriminating the bit value of display data, the state of the switch can be discriminated.

7. Switch check (4)

Page 2	Address 60, 61, 62, 65, 66

Using method:

1) Select page: 2, address: 60, 61, 62, 65, 66.
2) By discriminating the display data, the pressed key can be discriminated.

Address	Data							
	00 to 0C	0D to 24	25 to 3F	40 to 5D	5E to 81	82 to AA	AB to D7	D8 to FF
60 (KEY AD0) (IC4803 (93))		STOP (FK-78 board) (S001)	PLAY (FK-78 board) (S002)	REC (FK-78 board) (S003, 004)	FF (FK-78 board) (S005)	REW (FK-78 board) (S006)		No key input
61 (KEY AD1) (IC4803 (94))		PAUSE (FK-78 board) (S007)	X2 (FK-78 board) (S008)	FRAME – (FK-78 board) (S009)	FRAME + (FK-78 board) (S010)	SLOW (FK-78 board) (S011)		No key input
62 (KEY AD2) (IC4803 (95))	DATA CODE (FK-78 board) (S012)	DISPLAY (FK-78 board) (S013)	DIGITAL EFFECT (FK-78 board) (S014)	TITLE (FK-78 board) (S015)	PB ZOOM (FK-78 board) (S016)			No key input
65 (KEY AD5) (IC4803 (98))	SUPER LASER LINK (IO-68 board) (S101)	MENU (IO-68 board) (S102)	MENU EXECUTE (IO-68 board) (S103)	VOLUME + (IO-68 board) (S104)	VOLUME – (IO-68 board) (S105)			No key input
66 (KEY AD6) (IC4803 (99))		LCD BRIGHT + (PD-130 board) (S601)	LCD BRIGHT – (PD-130 board) (S602)				PANEL CLOSE (LS-56 board) (S001)	PANEL OPEN (LS-56 board) (S001)

8. Record of Use check

Note: When replacing the drum assembly, initialize the data of address: A2 to AA.

Page 2	Address A2 to AA

Bit	Function		Remarks
A2	Drum rotation counted time (BCD code)	Minute	
A3		Hour (L)	10th place digit and 1st place digit of counted time (decimal digit)
A4		Hour (H)	1000th place digit and 100th place digit of counted time (decimal digit)
A5	User initial power on date (BCD code)	Year	After setting the clock, set the date of power on next
A6		Month	
A7		Day	
A8	Final condensation occurrence date (BCD code)	Year	
A9		Month	
AA		Day	

Using method:

1) The record of use data is displayed at page: 2, addresses: A2 to AA.
   Note: This data will be erased (reset) when the FP-571 flexible (VC-250 board CN926 (4P)) is removed.

Initializing method:

1) Using the adjustment remote commander, select the object address and set data: 00.

9. Record of Self-diagnosis check

Page 2	Address B0 to C6

Address	Self-diagnosis code
B0	"Repaired by" code (Occurred 1st time) *1
B1	"Block function" code (Occurred 1st time)
B2	"Detailed" code (Occurred 1st time)
B4	"Repaired by" code (Occurred 2nd time) *1
B5	"Block function" code (Occurred 2nd time)
B6	"Detailed" code (Occurred 2nd time)
B8	"Repaired by" code (Occurred 3rd time) *1
B9	"Block function" code (Occurred 3rd time)
BA	"Detailed" code (Occurred 3rd time)
BC	"Repaired by" code (Occurred 4th time) *1
BD	"Block function" code (Occurred 4th time)
BE	"Detailed" code (Occurred 4th time)
C0	"Repaired by" code (Occurred 5th time) *1
C1	"Block function" code (Occurred 5th time)
C2	"Detailed" code (Occurred 5th time)
C4	"Repaired by" code (Occurred the last time) *1
C5	"Block function" code (Occurred the last time)
C6	"Detailed" code (Occurred the last time)

*1 : "01" → "C", "03" → "E"

Using method:

1) The past self-diagnosis codes are displayed at page:2, addresses: BC to C6. Refer to "SELF-DIAGNOSIS FUNCTION" for detail of the self-diagnosis code.
Note: This data will be erased (reset) when the FP-571 flexible (VC-250 board CN926 (4P)) is removed.

SECTION 6
REPAIR PARTS LIST

6-1. EXPLODED VIEWS

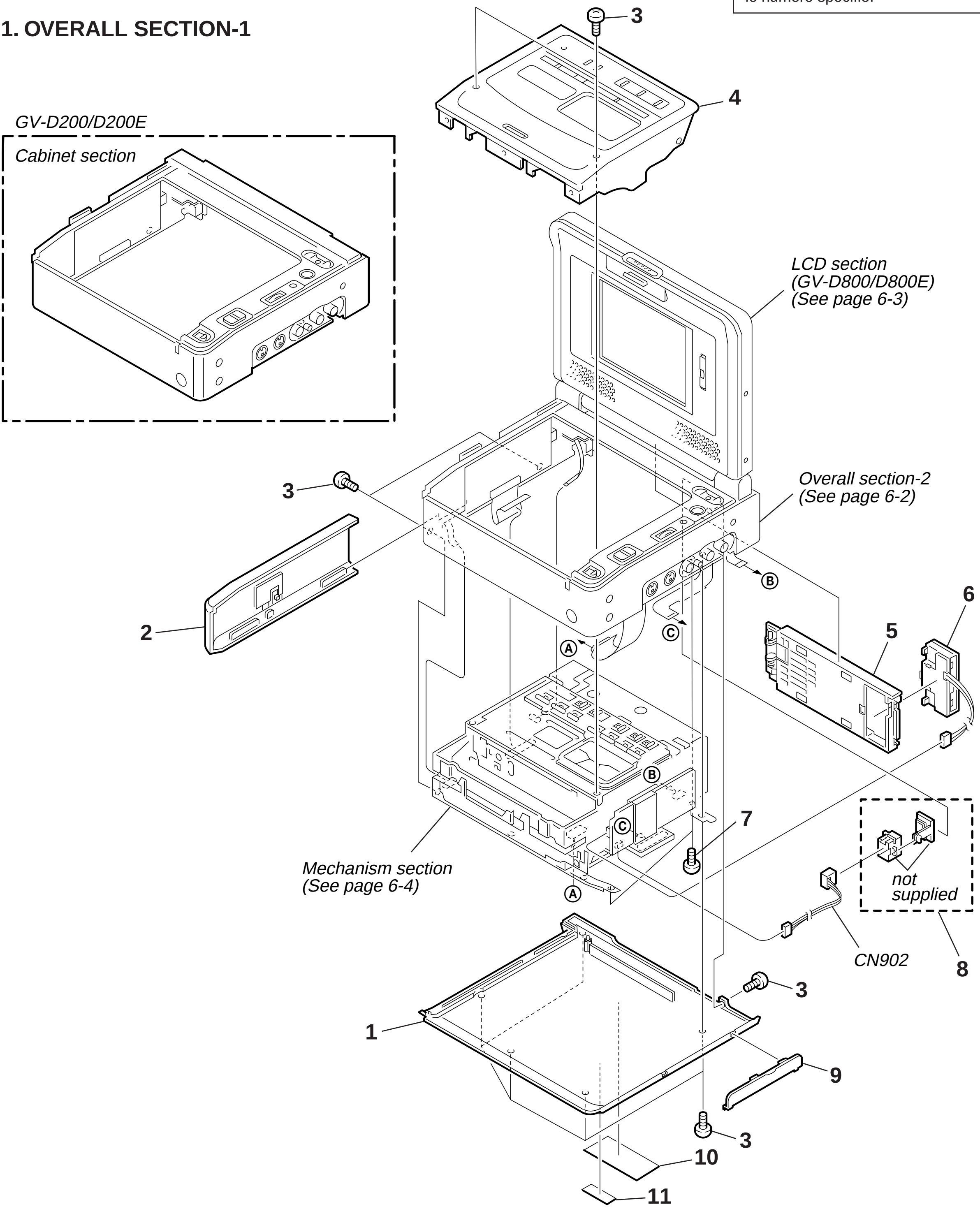
NOTE:

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Abbreviation
  CND: Canadian model

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

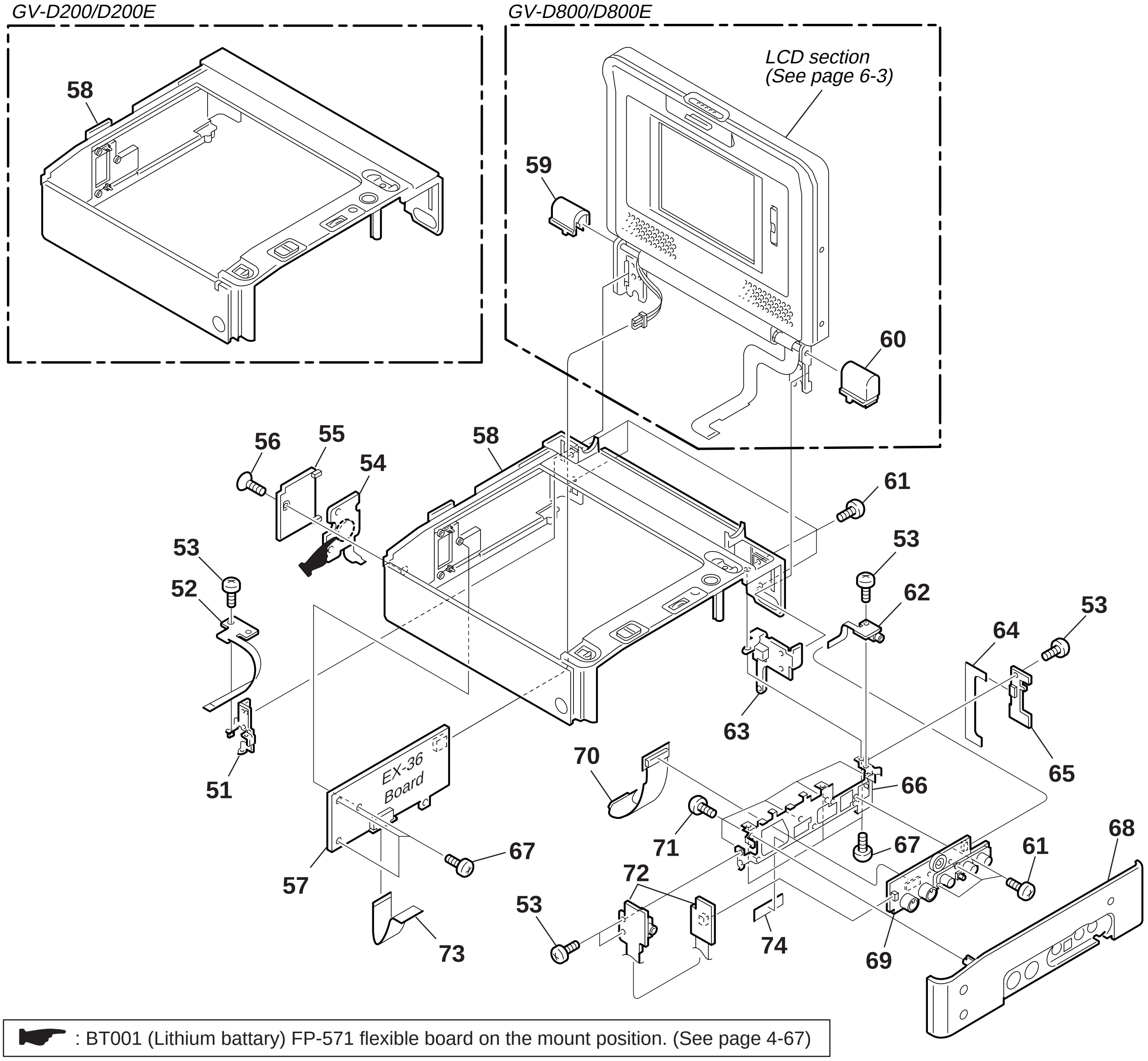
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

6-1-1. OVERALL SECTION-1


3
4
GV-D200/D200E
Cabinet section
LCD section
(GV-D800/D800E)
(See page 6-3)
3
Overall section-2
(See page 6-2)
B
6
2
C
5
A
B
7
C
Mechanism section
(See page 6-4)
A
not supplied
CN902
8
3
1
9
3
10
11

Ref. No.	Part No.	Description	Remarks
1	X-3951-050-1	CABINET (BOTTOM) ASSY	
2	X-3947-873-1	CABINET (LID) ASSY	
3	3-968-729-01	SCREW(M2X4), LOCK ACE, P2	
4	X-3951-054-1	LID ASSY, CASSETTE (D800)	
4	X-3951-055-1	LID ASSY, CASSETTE (D800E)	
4	X-3951-057-1	LID ASSY, CASSETTE (D200)	
4	X-3951-058-1	LID ASSY, CASSETTE (D200E)	
5	X-3947-753-2	PANEL ASSY, BATTERY	
6	1-694-076-11	TERMINAL BOARD, BATTERY	
7	3-948-339-61	TAPPING	
8	X-3951-052-1	JACK ASSY, DC	
9	X-3951-060-1	LID ASSY, JACK (D200/D800)	
9	X-3951-061-1	LID ASSY, JACK (D200E/D800E)	
10	3-703-845-01	LABEL (N) (U/C), MAIN CAUTION (D200/D800)	
* 11	3-704-367-01	LABEL (D200/D800)	
CN902	1-785-247-21	CONNECTOR, DC-IN 3P	

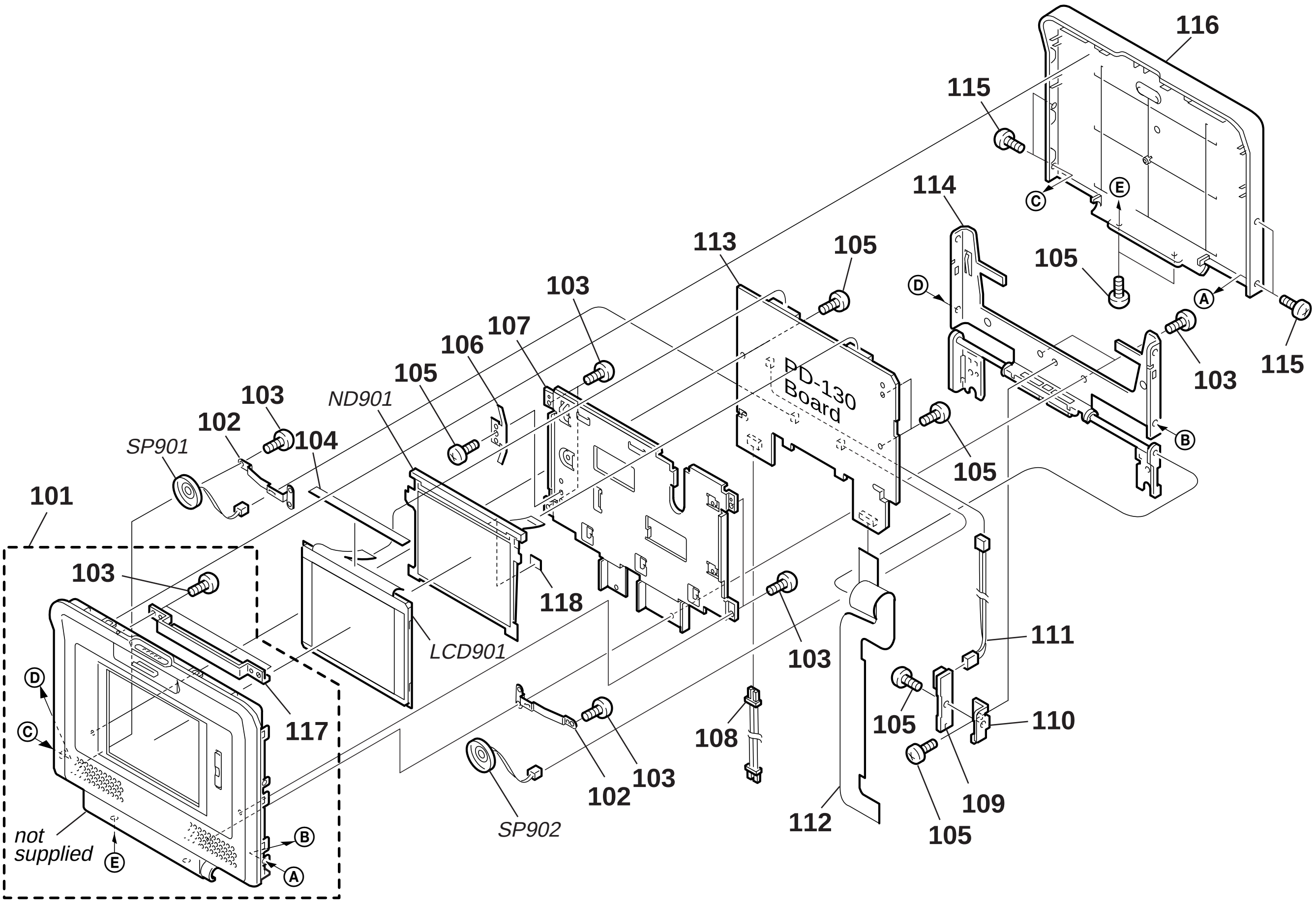
6-1-2. OVERALL SECTION-2


GV-D200/D200E
GV-D800/D800E
LCD section
(See page 6-3)
58
59
60
56
55
54
58
61
53
53
52
62
53
64
63
65
70
66
51
EX-36
Board
67
71
61
68
72
57
53
73
74
69

☛ : BT001 (Lithium battary) FP-571 flexible board on the mount position. (See page 4-67)

Ref. No.	Part No.	Description	Remarks
* 51	3-978-678-01	SHEET METAL (L), STRAP	
52	1-669-797-11	FP-602 FLEXIBLE BOARD 5P	
53	3-968-729-51	SCREW (M2X3), LOCK ACE, P2	
54	1-667-400-11	FP-571 FLEXIBLE BOARD 4P	
55	3-978-710-01	LID, LITHIUM	
56	7-685-203-19	SCREW +KTP 2X5 TYPE2 NON-SLIT	
57	A-7074-567-A	EX-36 BOARD, COMPLETE (D800/D800E)	
57	A-7074-610-A	EX-36 BOARD, COMPLETE (D200/D200E)	
58	X-3951-063-1	CABINET (UPPER) ASSY (D800/D800E)	
58	X-3951-065-1	CABINET (UPPER) ASSY (D200/D200E)	
59	3-064-401-01	COVER (L), SHAFT (D800/D800E)	
60	3-064-402-01	COVER (R), SHAFT (D800/D800E)	
61	3-968-729-01	SCREW (M2X4), LOCK ACE, P2	
62	1-667-404-11	FP-575 FLEXIBLE BOARD 6P	
63	3-064-416-01	SHEET METAL (R), STRAP	
64	1-667-401-11	FP-572 FLEXIBLE BOARD 6, 10P	
65	A-7074-570-A	IR-38 BOARD, COMPLETE	
66	3-064-417-01	FRAME, JACK	
67	3-948-339-61	TAPPING	
68	3-064-410-11	CABINET (R) (D200/D800)	
68	3-064-410-21	CABINET (R) (D200E/D800E)	
69	A-7074-569-A	IO-68 BOARD, COMPLETE	
70	1-679-721-11	FP-247 FLEXIBLE BOARD 50P	
71	3-945-884-11	SCREW (2X6)	
72	A-7074-573-A	FP-246 BOARD, COMPLETE	
73	1-667-399-11	FP-570 FLEXIBLE BOARD 40P	
74	3-066-145-01	SHEET (JK FRAME)	

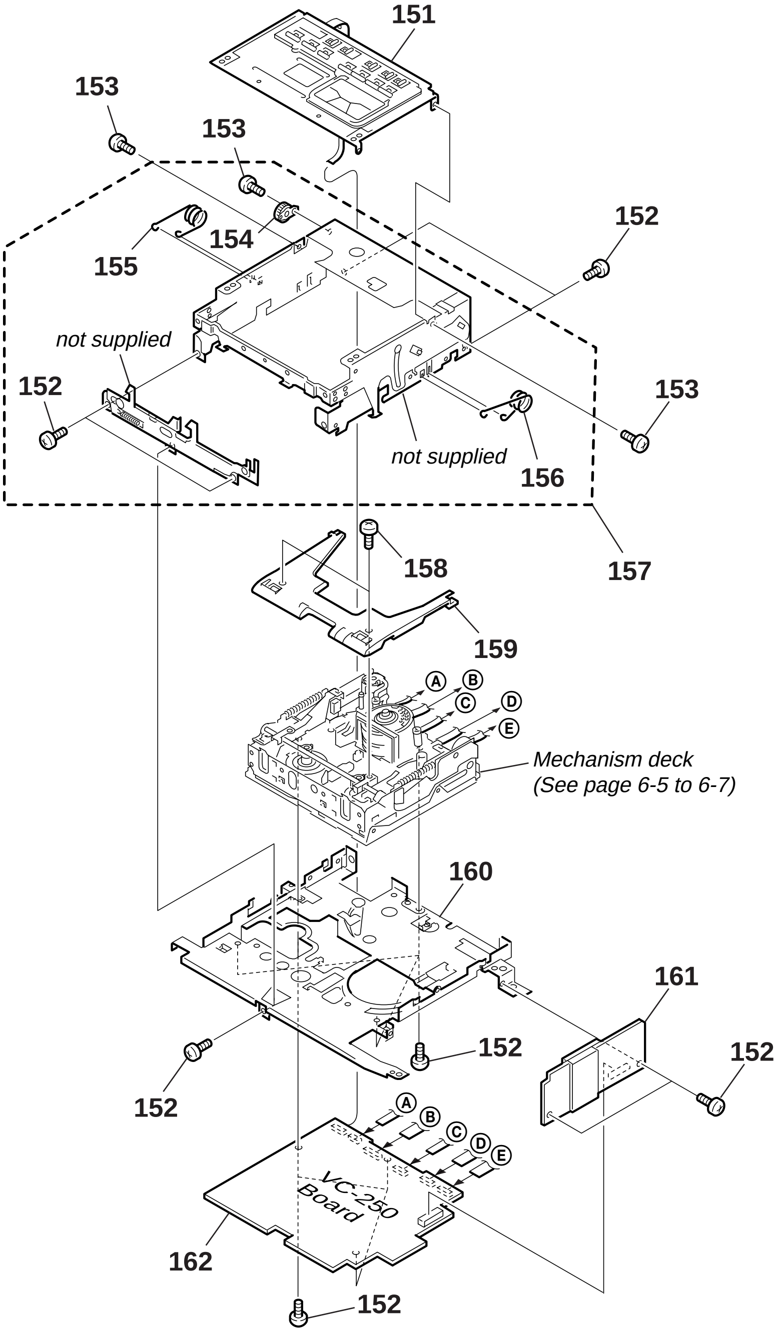
6-1-3. LCD SECTION (D800/D800E MODEL)


116
115
114
E
C
113
105
105
D
A
115
103
103
107
106
105
PD-130 Board
103
103
ND901
102
104
SP901
B
105
101
103
118
LCD901
111
103
D
C
117
105
110
108
102
103
109
112
105
not supplied
E
B
A
SP902

Ref. No.	Part No.	Description	Remarks
101	X-3951-049-1	CABINET ASSY, LCD WINDOW	
102	3-064-405-01	PLATE, SP GROUND	
103	3-948-339-61	TAPPING	
104	3-064-400-01	SHEET (LCD BLIND)	
105	3-968-729-51	SCREW (M2X3), LOCK ACE, P2	
106	3-064-406-01	PLATE, LCD GROUND	
107	3-064-403-01	FRAME, PD	
108	1-958-004-11	HARNESS (EP-51) 2P	
109	A-7074-571-A	LS-56 BOARD, COMPLETE	
110	3-064-404-01	BRACKET, LS	
111	1-960-864-11	HARNESS (PL-53) 2P	
112	1-667-398-11	FP-569 FLEXIBLE BOARD 26, 32P	
113	A-7074-572-A	PD-130 BOARD, COMPLETE	
114	3-065-218-01	HINGE UNIT	
115	3-968-729-71	SCREW (M2X4), LOCK ACE, P2	
116	X-3951-046-1	CABINET ASSY, LCD (D800)	
116	X-3951-047-1	CABINET ASSY, LCD (D800E)	
117	3-718-233-01	NUT, PLATE	
118	3-064-766-01	SHEET (PD)	
LCD901	1-803-893-21	INDICATOR MODULE, LIQUID CRYST	
⚠ND901	1-517-852-21	TUBE, FLUORESCENT, COLD CATHODE	
SP901	1-529-590-11	SPEAKER (2.0CM)	
SP902	1-529-590-11	SPEAKER (2.0CM)	

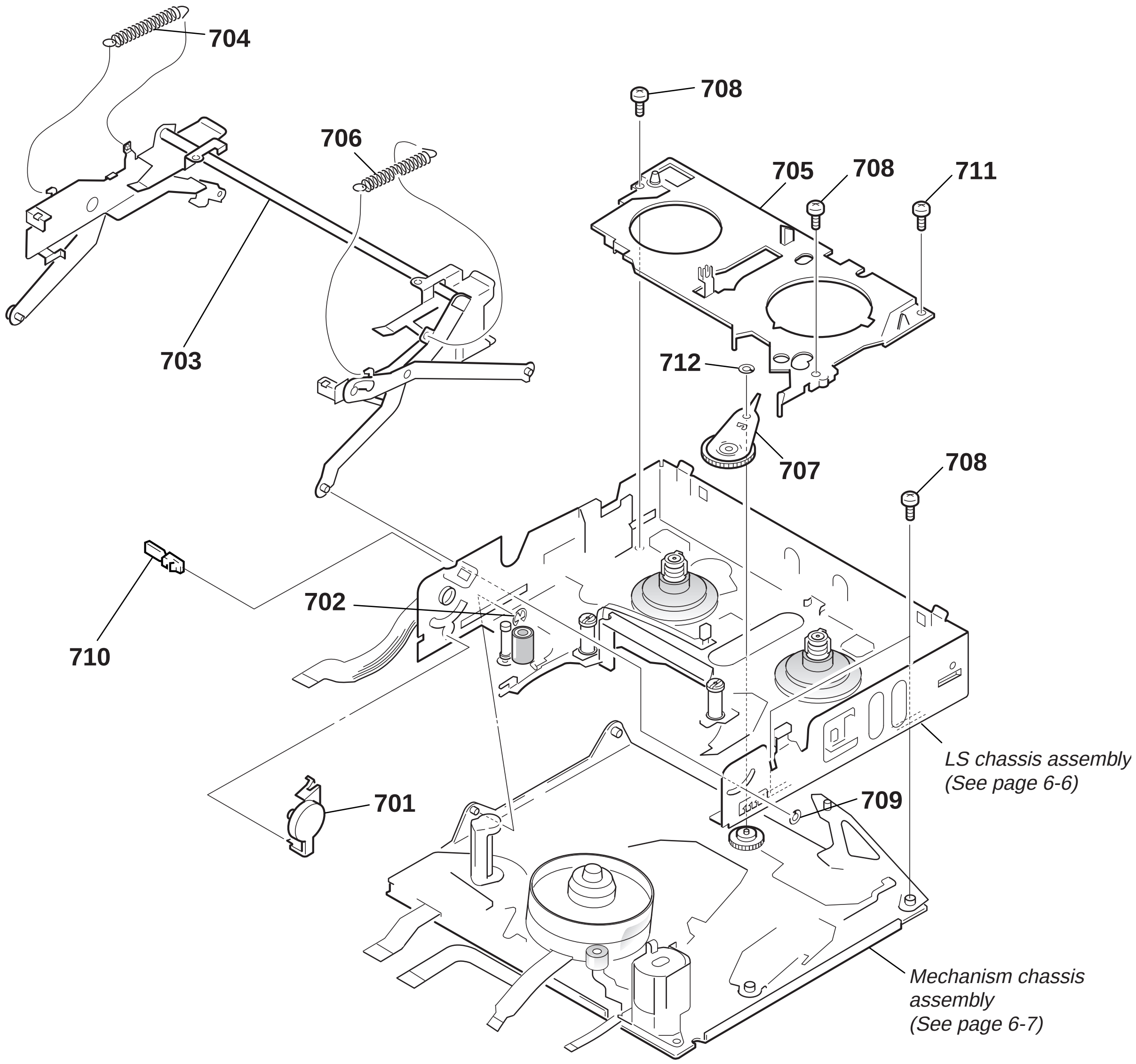
Note :	**Note :**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

6-1-4. MECHANISM SECTION


151
153
153
152
154
155
not supplied
152
153
not supplied
156
157
158
159
A
B
C
D
E
Mechanism deck
(See page 6-5 to 6-7)
160
161
152
152
152
A
B
C
D
E
VC-250
Board
162
152

Ref. No.	Part No.	Description	Remarks
151	1-476-355-21	SWITCH BLOCK, CONTROL (FK-78) 10P	
152	3-968-729-51	SCREW (M2X3), LOCK ACE, P2	
153	3-703-816-33	SCREW (M1.4X1.6), SPECIAL HEAD	
154	3-965-303-01	DAMPER	
155	3-978-702-01	SPRING (L), FRAME RETURN	
156	3-978-713-01	SPRING (R), FRAME RETURN	
* 157	X-3947-755-1	FRAME ASSY, LID	
158	3-968-729-01	SCREW (M2X4), LOCK ACE, P2	
159	3-978-711-01	LID, LOADING	
* 160	X-3947-997-1	FRAME ASSY, MAIN	
161	A-7074-568-A	FU-145 BOARD, COMPLETE (D800/D800E)	
161	A-7074-612-A	FU-145 BOARD, COMPLETE (D200/D200E)	
162	A-7074-617-A	VC-250 BOARD, COMPLETE (SERVICE) (D800)	
162	A-7074-618-A	VC-250 BOARD, COMPLETE (SERVICE)(D800E)	
162	A-7074-619-A	VC-250 BOARD, COMPLETE (SERVICE)(D200)	
162	A-7074-620-A	VC-250 BOARD, COMPLETE (SERVICE)(D200E)	

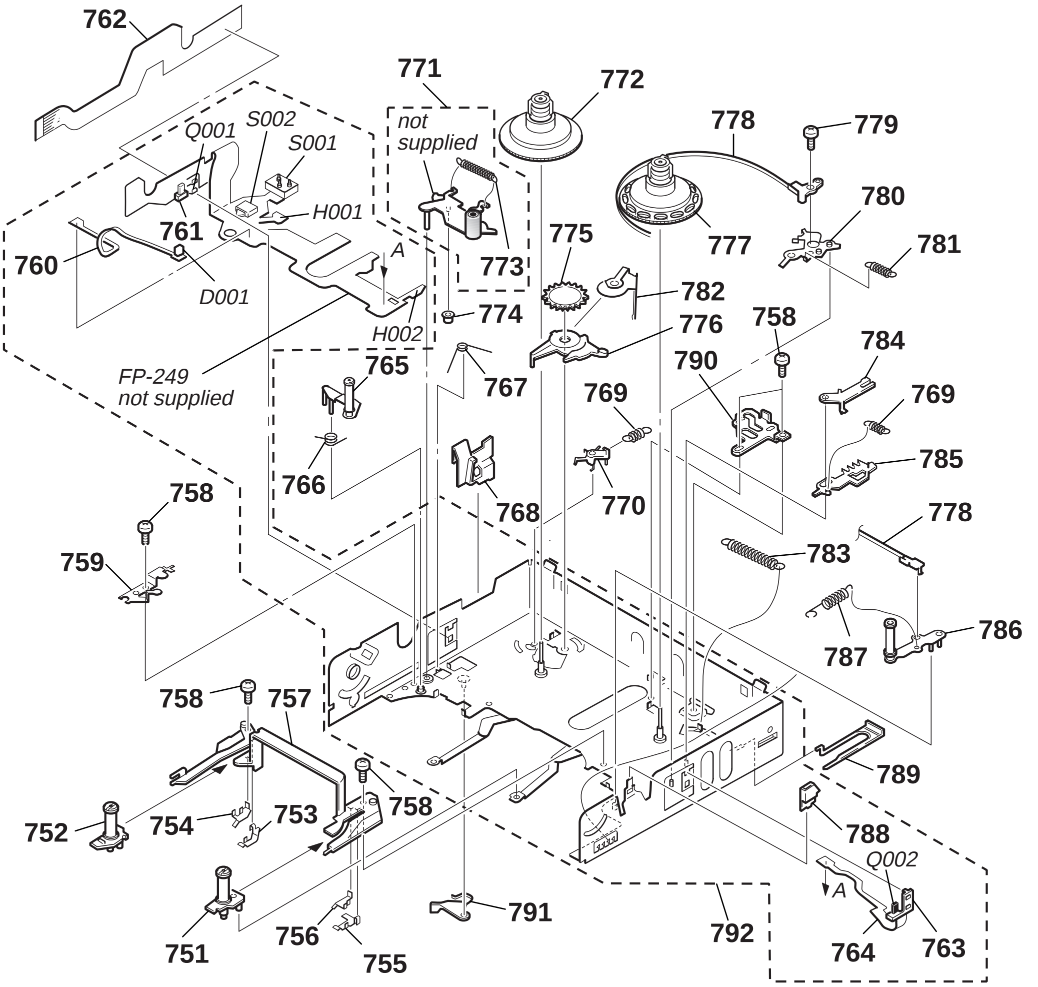
6-1-5. CASSETTE COMPARTMENT ASSEMBLY


704
708
706
705
708
711
703
712
707
708
702
710
LS chassis assembly
(See page 6-6)
701
709
Mechanism chassis
assembly
(See page 6-7)

Ref. No.	Part No.	Description	Remarks
701	A-7040-421-A	DAMPER ASSY	
702	7-624-102-04	STOP RING 1.5, TYPE -E	
703	X-3949-153-2	CASSETTE COMPARTMENT ASSY	
704	3-965-587-03	SPRING (POWER TENSION), TENSION	
705	3-989-479-01	RETAINER (2), GOOSENECK	
706	3-973-268-01	SPRING (POWER TENSION), TENSION	

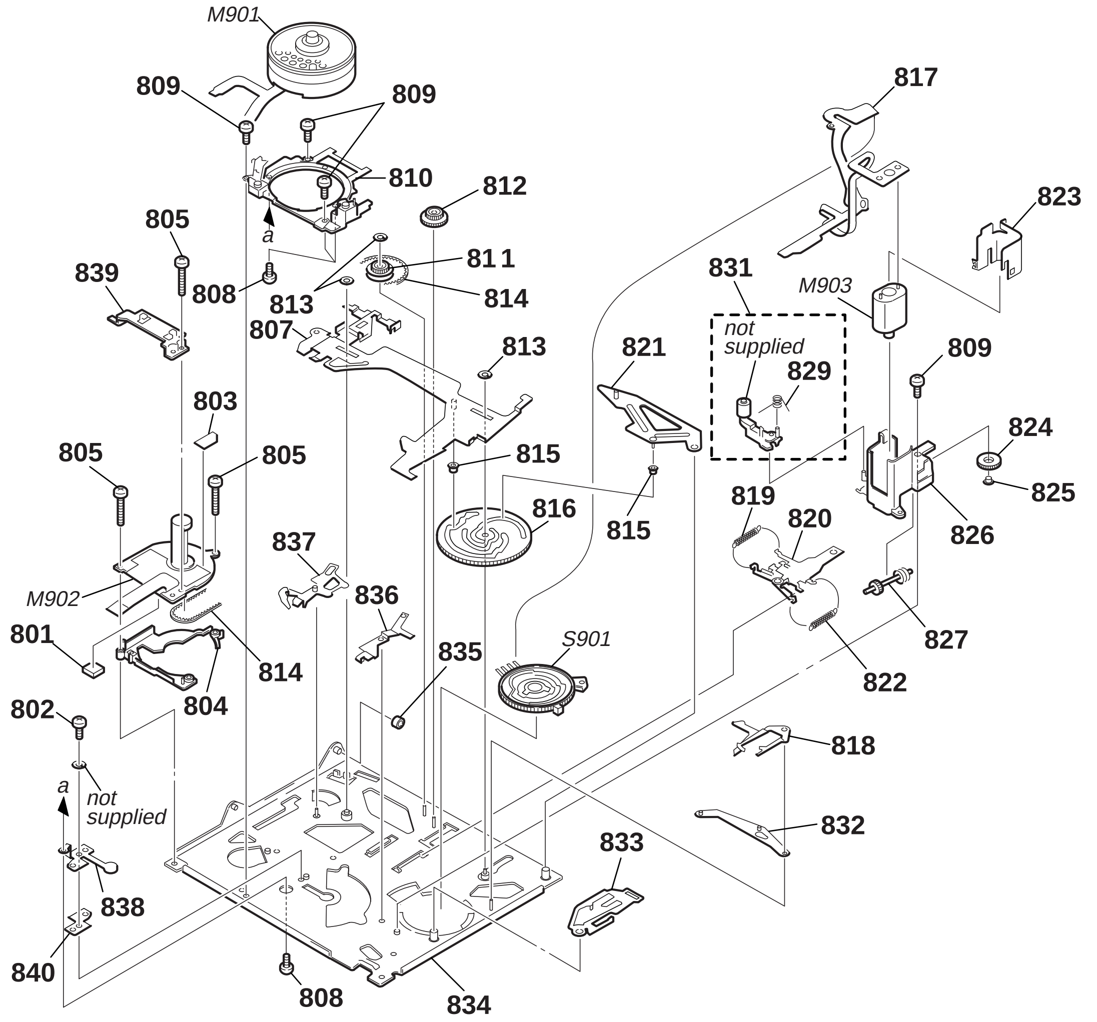
Ref. No.	Part No.	Description	Remarks
707	X-3945-399-1	GEAR ASSY, GOOSENECK	
708	3-947-503-01	SCREW (M1.4)	
709	3-979-686-01	WASHER, STOPPER	
710	3-971-076-01	FASTENER, D	
711	3-976-055-01	SCREW (M1.4X1)	
712	3-331-007-21	WASHER	

6-1-6. LS CHASSIS ASSEMBLY


762
771
772
not supplied
778
779
Q001
S002
S001
H001
761
760
D001
A
773
775
777
780
781
782
774
H002
776
758
784
FP-249
not supplied
765
767
769
790
769
766
785
758
768
770
778
759
783
786
787
758
757
789
752
754
753
758
788
Q002
A
751
756
755
791
792
764
763

Ref. No.	Part No.	Description	Remarks
751	A-7040-419-A	BASE (S) BLOCK ASSY, GUIDE	
752	A-7040-418-B	BASE (T) BLOCK ASSY, GUIDE	
753	3-965-559-01	STOPPER (T)	
754	3-965-557-01	STOPPER (T), GB	
755	3-965-558-01	STOPPER (S)	
756	3-965-556-01	STOPPER (S), GB	
757	3-965-553-01	RAIL, GUIDE	
758	3-947-503-01	SCREW (M1.4)	
759	3-965-573-01	RETAINER, TG4	
760	1-658-213-11	FP-355 FLEXIBLE BOARD	
761	3-965-552-01	HOLDER (T REEL) SENSOR	
762	1-657-786-13	FP-221 FLEXIBLE BOARD	
763	3-965-551-01	HOLDER (S REEL) SENSOR	
764	1-658-214-11	FP-356 FLEXIBLE BOARD	
765	A-7040-417-A	ARM BLOCK ASSY, TG4	
766	3-965-574-01	SPRING (RETURN, TG4), TORSION	
767	3-965-575-01	SPRING (PINCH), TORSION	
768	3-965-568-11	GUIDE, LOCK	
769	3-965-562-01	SPRING (RATCHET), TENSION	
770	3-965-581-03	RATCHET, T	
771	X-3950-856-1	ARM ASSY (E) (M), PINCH	
772	X-3945-398-6	DECK ASSY, REEL, T	
773	3-965-648-01	SPRING (PINCH), TENSION	
774	3-965-579-01	ROLLER, PINCH PRESS	
775	3-965-563-01	GEAR, T SOFT	
776	3-965-565-01	CLAW, T SOFT	
777	X-3945-397-4	DECK ASSY, REEL, S	
778	X-3945-396-1	BAND ASSY, TENSION REGULATOR	
779	3-945-756-01	SCREW (M1.4X3)	
780	3-965-583-01	ARM, RVS	
781	3-965-580-01	SPRING (ARM, RVS), TENSION	
782	3-966-384-01	SPRING, T SOFT	
783	3-965-578-01	SPRING, TENSION COIL	
784	3-965-560-01	RATCHET, S	
785	3-965-561-01	PLATE, RELEASE, S RATCHET	
786	X-3945-395-1	ARM ASSY, TG1	
787	3-965-576-01	SPRING (TG1), TENSION	
788	3-965-567-01	LID OPEN	
789	3-965-566-01	COVER, LS GUIDE	
* 790	3-965-577-01	PLATE, CAM, LS	
791	3-965-569-01	ARM, EJ	
792	A-7040-427-B	CHASSIS (S1) ASSY, LS	
D001	8-719-988-42	DIODE GL453 (TAPE LED)	
H001	8-719-033-37	ELEMENT, HOLE HW-105C (T REEL)	
H002	8-719-033-37	ELEMENT, HOLE HW-105C (S REEL)	
Q001	8-729-907-25	PHOTO TRANSISTOR PT4850F (TAPE TOP)	
Q002	8-729-907-25	PHOTO TRANSISTOR PT4850F (TAPE END)	
S001	1-692-614-11	SWITCH, PUSH (3 KEY) (Hi8 MP,ME/MP,REC PROOF)	
S002	1-572-688-12	SWITCH, PUSH (1 KEY) (C.C. LOCK)	

6-1-7. MECHANISM CHASSIS ASSEMBLY


M901
809
809
817
810
812
823
805
a
811
839
808
813
814
831
M903
807
813
821
not supplied
829
809
803
824
805
805
815
819
825
816
820
815
826
837
836
M902
801
S901
827
835
814
822
804
802
818
a
not supplied
832
833
838
840
808
834

Ref. No.	Part No.	Description	Remarks
801	3-987-953-01	SPACER, RUBBER	
802	3-965-550-02	SCREW (M1.7X1.6)	
803	1-657-785-11	FP-248 FLEXIBLE BOARD	
804	3-054-404-01	SPACER, CAPSTAN	
805	3-965-549-01	SCREW (M1.4 X 6.5)	
807	3-971-644-02	SLIDER (2), M	
808	X-3947-895-1	SCREW ASSY, DRUM ATTACHED	
809	3-947-503-01	SCREW (M1.4)	
810	A-7096-321-A	DRUM BASE BLOCK ASSY (BA)	
811	3-965-527-01	GEAR, CHANGE	
812	3-965-544-01	GEAR, RELAY	
813	3-331-007-21	WASHER	
814	3-965-546-01	BELT, TIMING	
815	3-965-533-01	ROLLER, LS	
816	3-965-528-01	GEAR, CAM	
817	1-657-784-11	FP-220 FLEXIBLE BOARD	
818	3-965-529-01	PLATE, REGULATOR, TENSION	
819	3-965-536-01	SPRING (LIMITTER ARM T), COILO	
820	X-3945-388-1	SLIDER ASSY, GL	
821	3-965-532-21	ARM, LS	
822	3-965-535-01	SPRING (LIMITTER ARM S), COIL	
823	3-965-542-01	SHIELD, MOTOR	
824	3-965-539-01	GEAR (A)	
825	3-965-538-01	SLEEVE, MOTOR HOLDER	
826	3-965-540-01	HOLDER, MOTOR	
827	3-965-541-01	SHAFT, WORM	
829	3-965-724-01	SPRING (RETURN, HC), TORSION	
831	A-7094-701-A	ARM BLOCK ASSY (VA), HC	
832	3-965-531-01	ARM, GL	
833	3-965-530-01	PLATE (2), REGULATOR, TENSION	
834	X-3949-589-3	CHASSIS ASSY, MECHANICAL	
835	3-965-526-02	ROLLER, LS GUIDE	
836	3-965-547-01	ARM, HC DRIVING	
837	3-965-534-01	PLATE, PRESS, PINCH	
838	3-974-320-02	GROUND (IM), SHAFT	
839	3-966-349-01	HOLDER, FLEXIBLE	
840	3-975-900-03	SPACER, GROUND	
M901	A-7048-945-A	DRUM BLOCK ASSY (DKH-03A-R)	
M902	8-835-531-32	MOTOR, DC SCE-0601A/C-NP (CAPSTAN)	
M903	X-3945-401-1	MOTOR ASSY, DC (LOADING)	
S901	1-762-436-15	SWITCH (ENCODER), ROTARY	

EX-36 FP-246 FP-249 FP-355 FP-356 FP-571 FU-145

6-2. ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- CAPACITORS:
  uF: μF
- COILS
  uH: μH
- RESISTORS
  All resistors are in ohms.
  METAL: metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F: nonflammable
- SEMICONDUCTORS
  In each case, u: μ, for example:
  uA...: μA... , uPA... , μPA... ,
  uPB... , μPB... , uPC... , μPC... ,
  uPD..., μPD...

When indicating parts by reference number, please include the board name.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- Abbreviation
  CND: Canadian model

Ref. No.	Part No.	Description	Remarks
	A-7074-567-A	EX-36 BOARD, COMPLETE (D800/D800E)	
		**********************	
	A-7074-610-A	EX-36 BOARD, COMPLETE (D200/D200E)	
		**********************	
			(Ref.No.;10000 Series)
		< BUZZER >	
BZ201	1-529-107-11	BUZZER, PIEZOELECTRIC	
		< CONNECTOR >	
CN203	1-770-542-21	CONNECTOR, FFC/FPC 40P	
CN204	1-537-439-11	TARMINAL BOARD, CONNECTOR	
CN205	1-778-330-21	PIN, CONNECTOR (PC BOARD) 2P	(D800/D800E)
		< DIODE >	
D201	8-719-062-16	DIODE 01ZA8.2 (TPL3)	
D202	8-719-062-16	DIODE 01ZA8.2 (TPL3)	
D203	8-719-062-16	DIODE 01ZA8.2 (TPL3)	
D204	8-719-062-16	DIODE 01ZA8.2 (TPL3)	
D205	8-719-062-16	DIODE 01ZA8.2 (TPL3)	
D206	8-719-062-16	DIODE 01ZA8.2 (TPL3)	
D207	8-719-062-16	DIODE 01ZA8.2 (TPL3)	
D208	8-719-062-16	DIODE 01ZA8.2 (TPL3)	
D209	8-719-062-16	DIODE 01ZA8.2 (TPL3)	
D210	8-719-062-16	DIODE 01ZA8.2 (TPL3)	

Ref. No.	Part No.	Description	Remarks
	A-7074-573-A	FP-246 BOARD, COMPLETE	
		************************	
			(Ref.No.;20000 Series)
		< JACK >	
J001	1-778-040-11	JACK (SMALL TYPE) (AUDIO/VIDEO)	
J002	1-695-514-21	JACK (SMALL TYPE) 1P (HEADPHONES)	

Ref. No.	Part No.	Description	Remarks
		FP-249 BOARD, COMPLETE (Not supplied)	
		************************	
			(Ref.No.;20000 Series)
	3-965-552-01	HOLDER (T), SENSOR	
		< HOLE ELEMENT >	
H001	8-719-033-37	ELEMENT, HALL HW-105C (T REEL)	
H002	8-719-033-37	ELEMENT, HALL HW-105C (S REEL)	
		< TRANSISTOR >	
Q001	8-729-907-25	PHOTO TRANSISTOR PT4850F (TAPE TOP)	
		< SWITCH >	
S001	1-692-614-11	SWITCH, PUSH (3 KEY)	(Hi8 MP,ME/MP,REC PROOF)
S002	1-572-688-11	SWITCH, PUSH (1 KEY) (CC DOWN)	

Ref. No.	Part No.	Description	Remarks
	1-658-213-11	FP-355 FLEXIBLE BOARD	
		**********************	
			(Ref.No.;20000 Series)
		< DIODE >	
D001	8-719-988-42	DIODE GL453	

Ref. No.	Part No.	Description	Remarks
	1-658-214-11	FP-356 FLEXIBLE BOARD	
		**********************	
			(Ref.No.;20000 Series)
	3-965-551-01	HOLDER (S), SENSOR	
		< TRANSISTOR >	
Q002	8-729-907-25	PHOTO TRANSISTOR PT4850F (TAPE END)	

Ref. No.	Part No.	Description	Remarks
	1-667-400-11	FP-571 FLEXIBLE BOARD	
		***********************	
			(Ref.No.;20000 Series)
		< BATTERY >	
BT001	1-528-724-21	BATTERY, V/L RICHARGEABL	

Ref. No.	Part No.	Description	Remarks
	A-7074-568-A	FU-145 BOARD, COMPLETE (D800/D800E)	
		************************	
	A-7074-612-A	FU-145 BOARD, COMPLETE (D200/D200E)	
		************************	
			(Ref.No.;10000 Series)
		< CAPACITOR >	
C501	1-107-826-11	CERAMIC CHIP 0.1uF 10.00% 16V	
C502	1-107-826-11	CERAMIC CHIP 0.1uF 10.00% 16V	
C503	1-164-227-11	CERAMIC CHIP 0.022uF 10% 25V	
C504	1-119-751-11	TANTAL. CHIP 22uF 20% 16V	
C505	1-119-751-11	TANTAL. CHIP 22uF 20% 16V	
C506	1-119-751-11	TANTAL. CHIP 22uF 20% 16V	(D800/D800E)
C508	1-109-982-11	CERAMIC CHIP 1uF 10.00% 10V	
C1301	1-162-960-11	CERAMIC CHIP 220PF 10% 50V	
C1302	1-107-826-11	CERAMIC CHIP 0.1uF 10.00% 16V	
C1303	1-107-826-11	CERAMIC CHIP 0.1uF 10.00% 16V	

Ref. No.	Part No.	Description			Remarks
C1304	1-107-826-11	CERAMIC CHIP	0.1uF	10.00%	16V
C1305	1-165-176-11	CERAMIC CHIP	0.047uF	10.00%	16V
C1306	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1307	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C1308	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C1309	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C1310	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C1311	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C1312	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C1313	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C1314	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C1315	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C1316	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C1317	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C1318	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C1319	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C1321	1-115-566-11	CERAMIC CHIP	4.7uF	10.00%	10V
C1323	1-115-566-11	CERAMIC CHIP	4.7uF	10.00%	10V
C1326	1-115-566-11	CERAMIC CHIP	4.7uF	10.00%	10V
C1327	1-115-566-11	CERAMIC CHIP	4.7uF	10.00%	10V
C1328	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C1329	1-115-566-11	CERAMIC CHIP	4.7uF	10.00%	10V
C1330	1-115-566-11	CERAMIC CHIP	4.7uF	10.00%	10V
C1331	1-115-566-11	CERAMIC CHIP	4.7uF	10.00%	10V
C1332	1-115-566-11	CERAMIC CHIP	4.7uF	10.00%	10V (D800/D800E)
C1334	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C1337	1-164-506-11	CERAMIC CHIP	4.7uF		16V
C1338	1-164-506-11	CERAMIC CHIP	4.7uF		16V
C1342	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C1344	1-115-566-11	CERAMIC CHIP	4.7uF	10.00%	10V (D800/D800E)
C1347	1-104-913-11	TANTAL. CHIP	10uF	20%	16V (D800/D800E)
C1348	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C1352	1-165-176-11	CERAMIC CHIP	0.047uF	10.00%	16V
C1359	1-164-506-11	CERAMIC CHIP	4.7uF		16V
		< CONNECTOR >			
* CN501	1-569-775-21	PIN, CONNECTOR (SMD) 5P			
* CN502	1-580-056-21	PIN, CONNECTOR (SMD) 3P			
CN1301	1-691-520-11	CONNECTOR, BOARD TO BOARD 48P			
		< DIODE >			
D501	8-719-056-85	DIODE	UDZS-TE17-8.2B		
D502	8-719-421-27	DIODE	MA728-(K8).S0		
D503	8-719-062-16	DIODE	01ZA8.2 (TPL3)		
D504	8-719-158-49	DIODE	MA8120-TX		
D505	8-719-027-76	DIODE	1SS357-TPH3		
D506	8-719-016-74	DIODE	1SS352-TPH3		
D507	8-719-016-74	DIODE	1SS352-TPH3		
D1301	8-719-027-76	DIODE	1SS357-TPH3		
D1302	8-719-027-77	DIODE	MA796-TX		
D1305	8-719-027-76	DIODE	1SS357-TPH3		
D1306	8-719-027-76	DIODE	1SS357-TPH3		

Ref. No.	Part No.	Description			Remarks
		< FUSE >			
⚠F501	1-576-406-21	FUSE, MICRO (1.4A)			
⚠F502	1-576-406-21	FUSE, MICRO (1.4A)			
⚠F503	1-576-406-21	FUSE, MICRO (1.4A)			
⚠F504	1-576-406-21	FUSE, MICRO (1.4A)			
⚠F505	1-576-406-21	FUSE, MICRO (1.4A)			
		< IC >			
IC1301	8-752-090-20	IC CXA3057R-T6			
		< COIL >			
L501	1-412-056-11	INDUCTOR	4.7uH (D800/D800E)		
L1301	1-416-670-11	INDUCTOR	33uH		
L1302	1-416-669-11	INDUCTOR	22uH		
L1303	1-416-669-11	INDUCTOR	22uH		
L1304	1-416-669-11	INDUCTOR	22uH		
L1305	1-416-669-11	INDUCTOR	22uH		
L1310	1-412-056-11	INDUCTOR	4.7uH		
L1317	1-416-669-11	INDUCTOR	22uH (D800/D800E)		
L1318	1-469-524-91	INDUCTOR	4.7uH (D800/D800E)		
		< TRANSISTOR >			
Q501	8-729-047-68	TRANSISTOR	SSM3K03FE (TPL3)		
Q502	8-729-046-77	TRANSISTOR	SI4963DY-T1		
Q503	8-729-804-41	TRANSISTOR	2SB1122-ST-TD		
Q504	8-729-042-29	TRANSISTOR	RN1104F (TPL3)		
Q505	8-729-047-68	TRANSISTOR	SSM3K03FE (TPL3)		
Q506	8-729-042-29	TRANSISTOR	RN1104F (TPL3)		
Q507	8-729-041-69	TRANSISTOR	MMSF5P02HDR2		
Q1301	8-729-043-60	TRANSISTOR	CPH6102-TL		
Q1302	8-729-046-98	TRANSISTOR	CPH6702-TL		
Q1303	8-729-046-98	TRANSISTOR	CPH6702-TL		
Q1304	8-729-046-98	TRANSISTOR	CPH6702-TL		
Q1305	8-729-046-98	TRANSISTOR	CPH6702-TL		
Q1306	8-729-046-98	TRANSISTOR	CPH6702-TL		
Q1307	8-729-044-58	TRANSISTOR	SI2304DS-T1		
Q1308	8-729-044-58	TRANSISTOR	SI2304DS-T1		
Q1309	8-729-046-98	TRANSISTOR	CPH6702-TL (D800/D800E)		
Q1310	8-729-037-52	TRANSISTOR	2SC4738F-Y/GR (TPL3)		
Q1311	8-729-017-61	TRANSISTOR	2SB1581-T1		
Q1312	8-729-037-53	TRANSISTOR	2SA1832F-Y/GR (TPL3)		
Q1313	8-729-037-52	TRANSISTOR	2SC4738F-Y/GR (TPL3)		
Q1314	8-729-042-29	TRANSISTOR	RN1104F (TPL3)		
		< RESISTOR >			
R501	1-216-821-11	METAL CHIP	1K	5%	1/16W
R502	1-216-296-91	SHORT	0		
R503	1-216-296-91	SHORT	0		
R504	1-216-853-11	METAL CHIP	470K	5%	1/16W
R505	1-216-857-11	METAL CHIP	1M	5%	1/16W
R506	1-216-150-91	RES-CHIP	10	5%	1/8W
R507	1-216-821-11	METAL CHIP	1K	5%	1/16W
R508	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R509	1-216-841-11	METAL CHIP	47K	5%	1/16W
R510	1-216-833-11	METAL CHIP	10K	5%	1/16W

Note :	**Note :**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description			Remarks
R511	1-216-821-11	METAL CHIP	1K	5%	1/16W
R512	1-216-857-11	METAL CHIP	1M	5%	1/16W
R1301	1-216-837-11	METAL CHIP	22K	5%	1/16W
R1302	1-216-839-11	METAL CHIP	33K	5%	1/16W
R1304	1-216-839-11	METAL CHIP	33K	5%	1/16W (D800/D800E)
R1305	1-216-864-11	METAL CHIP	0	5%	1/16W
R1306	1-216-837-11	METAL CHIP	22K	5%	1/16W
R1307	1-216-864-11	METAL CHIP	0	5%	1/16W
R1309	1-216-833-11	METAL CHIP	10K	5%	1/16W
R1310	1-216-864-11	METAL CHIP	0	5%	1/16W
R1311	1-216-839-11	METAL CHIP	33K	5%	1/16W
R1312	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R1313	1-216-837-11	METAL CHIP	22K	5%	1/16W
R1314	1-216-837-11	METAL CHIP	22K	5%	1/16W
R1316	1-216-864-11	METAL CHIP	0	5%	1/16W
R1317	1-216-841-11	METAL CHIP	47K	5%	1/16W
R1318	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R1319	1-216-841-11	METAL CHIP	47K	5%	1/16W
R1320	1-216-837-11	METAL CHIP	22K	5%	1/16W
R1321	1-218-879-11	METAL CHIP	22K	0.5%	1/16W
R1322	1-218-871-11	METAL CHIP	10K	0.5%	1/16W
R1326	1-216-833-11	METAL CHIP	10K	5%	1/16W (D800/D800E)
R1345	1-216-864-11	METAL CHIP	0	5%	1/16W
R1347	1-218-879-11	METAL CHIP	22K	0.5%	1/16W
R1348	1-218-871-11	METAL CHIP	10K	0.5%	1/16W
		< TRANSFORMER >			
⚠T1301	1-435-252-21	TRANSFORMER, DC-DC CONVERTER			

Ref. No.	Part No.	Description			Remarks
	A-7074-569-A	IO-68 BOARD, COMPLETE **********************			(Ref.No.;10000 Series)
		< CAPACITOR >			
C101	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C102	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C103	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C104	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C107	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C110	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C116	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C117	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C118	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C119	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C120	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C121	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C122	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C123	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C124	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
		< CONNECTOR >			
CN103	1-778-597-21	CONNECTOR, BOARD TO BOARD 50P			
CN104	1-573-525-21	CONNECTOR, BOARD TO BOARD 16P			
CN105	1-774-631-21	CONNECTOR, FFC/FPC 6P			

Ref. No.	Part No.	Description			Remarks
		< DIODE >			
D101	8-719-062-16	DIODE	01ZA8.2 (TPL3)		
D102	8-719-062-16	DIODE	01ZA8.2 (TPL3)		
D103	8-719-073-03	DIODE	MA8082-(K8).S0		
D104	8-719-062-16	DIODE	01ZA8.2 (TPL3)		
D105	8-719-062-16	DIODE	01ZA8.2 (TPL3)		
D106	8-719-062-16	DIODE	01ZA8.2 (TPL3)		
D107	8-719-062-16	DIODE	01ZA8.2 (TPL3)		
D108	8-719-073-03	DIODE	MA8082-(K8).S0		
D109	8-719-061-82	DIODE	TLSU1002 (TPX1,SONY)		
D110	8-719-062-16	DIODE	01ZA8.2 (TPL3)		
D111	8-719-073-03	DIODE	MA8082-(K8).S0		
D112	8-719-073-03	DIODE	MA8082-(K8).S0		
D113	8-719-073-01	DIODE	MA111-TX		
D114	8-719-062-16	DIODE	01ZA8.2 (TPL3)		
D115	8-719-062-16	DIODE	01ZA8.2 (TPL3)		
D116	8-719-062-16	DIODE	01ZA8.2 (TPL3)		
D117	8-719-062-16	DIODE	01ZA8.2 (TPL3)		
D119	8-719-062-16	DIODE	01ZA8.2 (TPL3)		
D120	8-719-062-16	DIODE	01ZA8.2 (TPL3)		
D121	8-719-073-03	DIODE	MA8082-(K8).S0		
D122	8-719-073-03	DIODE	MA8082-(K8).S0		
D123	8-719-062-16	DIODE	01ZA8.2 (TPL3)		
D124	8-719-073-03	DIODE	MA8082-(K8).S0		
D125	8-719-073-03	DIODE	MA8082-(K8).S0		
D126	8-719-073-03	DIODE	MA8082-(K8).S0		
		< FERRITE BEAD >			
FB101	1-414-760-21	INDUCTOR	0UH		
		< JACK >			
J101	1-566-850-31	CONNECTOR, (S) TERMINAL 4P (S VIDEO IN)			
J102	1-537-747-31	TERMINAL BOARD			(AUDIO R,L/RFU DC OUT/VIDEO OUT)
J103	1-566-850-31	CONNECTOR, (S) TERMINAL 4P (S VIDEO OUT)			
		< COIL >			
L101	1-414-072-11	INDUCTOR	1uH		
L103	1-412-963-11	INDUCTOR	100uH		
L104	1-412-963-11	INDUCTOR	100uH		
L105	1-412-963-11	INDUCTOR	100uH		
L106	1-412-963-11	INDUCTOR	100uH		
L107	1-412-963-11	INDUCTOR	100uH		
L108	1-412-963-11	INDUCTOR	100uH		
		< RESISTOR >			
R101	1-216-821-11	METAL CHIP	1K	5%	1/16W
R103	1-216-821-11	METAL CHIP	1K	5%	1/16W
R106	1-216-841-11	METAL CHIP	47K	5%	1/16W
R107	1-216-841-11	METAL CHIP	47K	5%	1/16W
R110	1-216-864-11	METAL CHIP	0	5%	1/16W
R111	1-216-864-11	METAL CHIP	0	5%	1/16W
R112	1-216-864-11	METAL CHIP	0	5%	1/16W
R120	1-216-821-11	METAL CHIP	1K	5%	1/16W
R121	1-216-821-11	METAL CHIP	1K	5%	1/16W
R128	1-216-822-11	METAL CHIP	1.2K	5%	1/16W

Note :	Note :
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remarks
R129	1-216-823-11	METAL CHIP 1.5K 5%	1/16W
R130	1-216-825-11	METAL CHIP 2.2K 5%	1/16W
R131	1-216-828-11	METAL CHIP 3.9K 5%	1/16W
R132	1-216-817-11	METAL CHIP 470 5%	1/16W
R133	1-216-864-11	METAL CHIP 0 5%	1/16W
R134	1-216-864-11	METAL CHIP 0 5%	1/16W
R135	1-216-864-11	METAL CHIP 0 5%	1/16W
R136	1-216-864-11	METAL CHIP 0 5%	1/16W
R137	1-216-864-11	METAL CHIP 0 5%	1/16W
R138	1-216-821-11	METAL CHIP 1K 5%	1/16W
R139	1-216-821-11	METAL CHIP 1K 5%	1/16W
		< SWITCH >	
S101	1-692-088-41	SWITCH, TACTILE (SUPER LASER LINK)	
S102	1-692-088-41	SWITCH, TACTILE (MENU)	
S103	1-771-025-21	SWITCH, ROTARY (ENCODER)	(SEL/PUSH EXEC)
S104	1-692-088-41	SWITCH, TACTILE (VOLUME +)	
S105	1-692-088-41	SWITCH, TACTILE (VOLUME -)	

Ref. No.	Part No.	Description	Remarks
	A-7074-570-A	IR-38 BOARD, COMPLETE **********************	(Ref.No.;10000 Series)
		< CAPACITOR >	
C382	1-135-210-11	TANTALUM CHIP 4.7uF 20%	10V
C392	1-107-826-11	CERAMIC CHIP 0.1uF 10.00%	16V
C393	1-125-837-91	CERAMIC CHIP 1uF 10%	6.3V
		< CONNECTOR >	
CN361	1-766-866-21	CONNECTOR, FFC/FPC 6P	
		< DIODE >	
D362	8-719-060-65	DIODE DAC3825	
D363	8-719-078-23	DIODE DCR2815	
		< FUSE >	
⚠F361	1-533-874-11	FUSE, MICRO (0.2A/24V)	
		< COIL >	
L363	1-414-078-11	INDUCTOR 10uH	
		< TRANSISTOR >	
Q365	8-729-140-75	TRANSISTOR 2SD999-T1-CLCK	
		< RESISTOR >	
R388	1-216-302-00	METAL CHIP 2.7 5%	1/10W
R389	1-216-311-00	METAL CHIP 6.8 5%	1/10W
R392	1-216-801-11	METAL CHIP 22 5%	1/16W

Ref. No.	Part No.	Description	Remarks
	A-7074-571-A	LS-56 BOARD, COMPLETE (D800/D800E) **********************	(Ref.No.;10000 Series)
		< CONNECTOR >	
* CN001	1-770-619-11	PIN, CONNECTOR 2P	
		< SWITCH >	
S001	1-771-091-21	SWITCH, PUSH (1 KEY) (LCD ON/OFF)	

Ref. No.	Part No.	Description	Remarks
	A-7074-572-A	PD-130 BOARD, COMPLETE (D800/D800E) ***********************	(Ref.No.;10000 Series)
		< CAPACITOR >	
C5501	1-119-750-11	TANTAL. CHIP 22uF 20%	6.3V
C5503	1-107-826-11	CERAMIC CHIP 0.1uF 10.00%	16V
C5504	1-107-826-11	CERAMIC CHIP 0.1uF 10.00%	16V
C5505	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V
C5506	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V
C5507	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V
C5508	1-107-826-11	CERAMIC CHIP 0.1uF 10.00%	16V
C5509	1-135-213-21	TANTAL. CHIP 3.3uF 20%	25V
C5510	1-107-826-11	CERAMIC CHIP 0.1uF 10.00%	16V
C5511	1-164-739-11	CERAMIC CHIP 560PF 5%	50V
C5512	1-107-826-11	CERAMIC CHIP 0.1uF 10.00%	16V
C5513	1-107-826-11	CERAMIC CHIP 0.1uF 10.00%	16V
C5514	1-104-852-11	TANTAL. CHIP 22uF 20%	10V
C5515	1-164-357-11	CERAMIC CHIP 0.001uF 5%	50V
C5516	1-162-925-11	CERAMIC CHIP 68PF 5%	50V
C5517	1-164-004-11	CERAMIC CHIP 0.1uF 10%	25V
C5518	1-164-004-11	CERAMIC CHIP 0.1uF 10%	25V
C5519	1-164-004-11	CERAMIC CHIP 0.1uF 10%	25V
C5520	1-113-994-11	TANTAL. CHIP 6.8uF 20%	16V
C5521	1-127-573-11	CERAMIC CHIP 1uF 10%	16V
C5522	1-107-826-11	CERAMIC CHIP 0.1uF 10.00%	16V
C5523	1-107-826-11	CERAMIC CHIP 0.1uF 10.00%	16V
C5524	1-107-682-11	CERAMIC CHIP 1uF 10.00%	16V
C5527	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V
C5528	1-135-177-21	TANTALUM CHIP 1uF 20%	20V
C5529	1-107-826-11	CERAMIC CHIP 0.1uF 10.00%	16V
C5530	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V
C5531	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V
C5602	1-113-682-11	TANTAL. CHIP 33uF 20%	10V
C5603	1-109-982-11	CERAMIC CHIP 1uF 10.00%	10V
C5604	1-164-657-11	CERAMIC CHIP 0.015uF 10.00%	50V
C5605	1-107-826-11	CERAMIC CHIP 0.1uF 10.00%	16V
C5606	1-107-826-11	CERAMIC CHIP 0.1uF 10.00%	16V
C5607	1-131-959-91	CERAMIC CHIP 12PF 10%	3KV
		< CONNECTOR >	
CN5501	1-573-364-11	CONNECTOR, FFC/FPC 24P	
* CN5502	1-573-984-11	CONNECTOR, BOARD TO BOARD 10P	
CN5503	1-573-366-21	CONNECTOR, FFC/FPC 26P	
CN5505	1-778-506-21	PIN, CONNECTOR (PC BOARD) 2P	
CN5506	1-778-506-21	PIN, CONNECTOR (PC BOARD) 2P	
* CN5604	1-569-352-11	HOUSING, CONNECTOR 10P	
CN5607	1-778-330-21	PIN, CONNECTOR (PC BOARD) 2P	
CN5608	1-784-342-21	HOUSING, CONNECTOR 2P	

Note :	**Note :**
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Ref. No.	Part No.	Description			Remarks
		< DIODE >			
D5502	8-713-102-80	DIODE 1T369-01-T8A			
D5503	8-719-073-01	DIODE MA111-(K8).S0			
D5601	8-719-073-01	DIODE MA111-(K8).S0			
D5605	8-719-062-16	DIODE 01ZA8.2 (TPL3)			
		< IC >			
IC5501	8-759-660-92	IC RB5P003AM1			
IC5502	8-759-682-96	IC LZ9FF444			
IC5503	8-759-478-92	IC TC7SET04FU (TE85R)			
IC5601	8-759-564-49	IC TC7W53FU (TE12R)			
IC5602	8-759-075-70	IC TA75S393F-TE85R			
		< COIL >			
L5501	1-469-525-91	INDUCTOR	10uH		
L5502	1-469-525-91	INDUCTOR	10uH		
L5503	1-469-525-91	INDUCTOR	10uH		
L5504	1-469-525-91	INDUCTOR	10uH		
L5505	1-412-949-21	INDUCTOR	6.8uH		
L5601	1-419-387-21	INDUCTOR	100uH		
		< TRANSISTOR >			
Q5501	8-729-037-52	TRANSISTOR	2SD2216J-QR(K8).SO		
Q5502	8-729-041-23	TRANSISTOR	MGSF1P02LT1		
Q5503	8-729-042-26	TRANSISTOR	2SB1462J-QR(K8).SO		
Q5504	8-729-042-26	TRANSISTOR	2SB1462J-QR(K8).SO		
Q5505	8-729-037-52	TRANSISTOR	2SD2216J-QR(K8).SO		
Q5506	8-729-037-52	TRANSISTOR	2SD2216J-QR(K8).SO		
Q5601	8-729-037-74	TRANSISTOR	UN9213J-(K8).SO		
Q5602	8-729-039-43	TRANSISTOR	FP216-TL		
Q5603	8-729-037-74	TRANSISTOR	UN9213J-(K8).SO		
Q5604	8-729-042-58	TRANSISTOR	UN9111J-(K8).SO		
		< RESISTOR >			
R5501	1-216-853-11	METAL CHIP	470K	5%	1/16W
R5503	1-218-895-11	METAL CHIP	100K	0.5%	1/16W
R5504	1-216-845-11	METAL CHIP	100K	5%	1/16W
R5505	1-216-835-11	METAL CHIP	15K	5%	1/16W
R5506	1-216-826-11	METAL CHIP	2.7K	5%	1/16W
R5507	1-216-841-11	METAL CHIP	47K	5%	1/16W
R5508	1-216-843-11	METAL CHIP	68K	5%	1/16W
R5509	1-216-837-11	METAL CHIP	22K	5%	1/16W
R5510	1-216-843-11	METAL CHIP	68K	5%	1/16W
R5511	1-216-857-11	METAL CHIP	1M	5%	1/16W
R5512	1-216-845-11	METAL CHIP	100K	5%	1/16W
R5513	1-216-857-11	METAL CHIP	1M	5%	1/16W
R5515	1-216-864-11	METAL CHIP	0	5%	1/16W
R5516	1-216-833-11	METAL CHIP	10K	5%	1/16W
R5519	1-216-864-11	METAL CHIP	0	5%	1/16W
R5520	1-216-864-11	METAL CHIP	0	5%	1/16W
R5521	1-216-864-11	METAL CHIP	0	5%	1/16W
R5523	1-216-809-11	METAL CHIP	100	5%	1/16W
R5524	1-216-809-11	METAL CHIP	100	5%	1/16W
R5525	1-216-809-11	METAL CHIP	100	5%	1/16W
R5551	1-216-841-11	METAL CHIP	47K	5%	1/16W
R5553	1-216-832-11	METAL CHIP	8.2K	5%	1/16W
R5557	1-216-864-11	METAL CHIP	0	5%	1/16W
R5560	1-216-853-11	METAL CHIP	470K	5%	1/16W
R5562	1-216-833-11	METAL CHIP	10K	5%	1/16W
R5563	1-216-841-11	METAL CHIP	47K	5%	1/16W
R5564	1-216-857-11	METAL CHIP	1M	5%	1/16W
R5565	1-216-857-11	METAL CHIP	1M	5%	1/16W
R5569	1-216-848-11	METAL CHIP	180K	5%	1/16W
R5608	1-216-864-11	METAL CHIP	0	5%	1/16W
R5609	1-216-833-11	METAL CHIP	10K	5%	1/16W
R5610	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R5611	1-216-845-11	METAL CHIP	100K	5%	1/16W
R5612	1-216-834-11	METAL CHIP	12K	5%	1/16W
R5613	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R5614	1-216-836-11	METAL CHIP	18K	5%	1/16W
R5616	1-216-810-11	METAL CHIP	120	5%	1/16W
R5617	1-216-837-11	METAL CHIP	22K	5%	1/16W
R5618	1-216-817-11	METAL CHIP	470	5%	1/16W
R5621	1-216-822-11	METAL CHIP	1.2K	5%	1/16W
R5622	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R5623	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R5624	1-216-828-11	METAL CHIP	3.9K	5%	1/16W
R5625	1-216-832-11	METAL CHIP	8.2K	5%	1/16W
R5626	1-216-838-11	METAL CHIP	27K	5%	1/16W
		< SWITCH >			
S5601	1-572-921-11	SWITCH, KEY BOARD (BRIGHT +)			
S5602	1-572-921-11	SWITCH, KEY BOARD (BRIGHT -)			
		< TRANSFORMER >			
⚠T5601	1-435-229-21	TRANSFORMER, INVERTER			
	A-7074-617-A	VC-250 BOARD, COMPLETE (D800)			
		************************			
	A-7074-618-A	VC-250 BOARD, COMPLETE (D800E)			
		************************			
	A-7074-619-A	VC-250 BOARD, COMPLETE (D200)			
		************************			
	A-7074-620-A	VC-250 BOARD, COMPLETE (D200E)			
		************************			
					(Ref.No.;30000 Series)
		< CAPACITOR >			
C901	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C902	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C1320	1-127-688-21	TANTAL. CHIP	10uF	20%	6.3V
C1322	1-135-201-11	TANTALUM CHIP	10uF	20%	4V
C1333	1-127-688-21	TANTAL. CHIP	10uF	20%	6.3V
					(D800/D800E)
C1335	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C1336	1-119-750-11	TANTAL. CHIP	22uF	20%	6.3V
C1339	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
					(D800/D800E)
C1340	1-127-688-21	TANTAL. CHIP	10uF	20%	6.3V
C1341	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C1343	1-135-157-21	TANTALUM CHIP	10uF	20%	6.3V
C1345	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C1353	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1355	1-164-505-11	CERAMIC CHIP	2.2uF		16V
					(D800/D800E)
C1356	1-164-505-11	CERAMIC CHIP	2.2uF		16V
					(D800/D800E)

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Ref. No.	Part No.	Description			Remarks
C1357	1-125-822-11	TANTALUM	10uF	20%	10V
C1505	1-115-156-11	CERAMIC CHIP	1uF		10V
C1507	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C1508	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C1510	1-164-846-11	CERAMIC CHIP	6PF	0.50PF	16V
C1512	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C1513	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C1514	1-162-925-11	CERAMIC CHIP	68PF	5%	50V
C1515	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C1516	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C1517	1-162-928-11	CERAMIC CHIP	120PF	5%	50V
C1518	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C1519	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C1520	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C1521	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C1522	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C1523	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1524	1-119-750-11	TANTAL. CHIP	22uF	20%	6.3V
C1526	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C2201	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C2202	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C2203	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C2204	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2208	1-164-392-11	CERAMIC CHIP	390PF	5%	50V
C2210	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C2211	1-119-660-11	TANTAL. CHIP	4.7uF	20%	6.3V
C2212	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C2213	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C2214	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2215	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C2222	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2223	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2224	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2225	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C2226	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C2227	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C2228	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C2229	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C2230	1-164-938-11	CERAMIC CHIP	0.0015uF	10%	16V
C2232	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C2233	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C2234	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C2236	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2238	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C2240	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C2242	1-115-156-11	CERAMIC CHIP	1uF		10V
C2243	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C2244	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C2247	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C2250	1-135-201-11	TANTALUM CHIP	10uF	20%	4V
C2291	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C2292	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
C2293	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C3102	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3104	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3105	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3107	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3108	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C3109	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3110	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V

Ref. No.	Part No.	Description			Remarks
C3111	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C3112	1-164-935-11	CERAMIC CHIP	470PF	10%	16V
C3113	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3114	1-164-866-11	CERAMIC CHIP	47PF	5%	16V
C3115	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3116	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C3117	1-164-935-11	CERAMIC CHIP	470PF	10%	16V
C3118	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3119	1-164-866-11	CERAMIC CHIP	47PF	5%	16V
C3120	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3121	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3122	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C3123	1-164-942-11	CERAMIC CHIP	0.0068uF	10%	16V
C3124	1-164-942-11	CERAMIC CHIP	0.0068uF	10%	16V
C3126	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3127	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3128	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3131	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3133	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3134	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3135	1-164-874-11	CERAMIC CHIP	100PF	5%	16V
C3136	1-164-872-11	CERAMIC CHIP	82PF	5%	16V
C3137	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3138	1-164-874-11	CERAMIC CHIP	100PF	5%	16V
C3139	1-164-878-11	CERAMIC CHIP	150PF	5%	16V
C3141	1-164-882-11	CERAMIC CHIP	220PF	5%	16V
C3142	1-164-882-11	CERAMIC CHIP	220PF	5%	16V
C3143	1-164-882-11	CERAMIC CHIP	220PF	5%	16V
C3144	1-164-882-11	CERAMIC CHIP	220PF	5%	16V
C3201	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3202	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3203	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C3204	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3205	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3206	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3207	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3208	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3210	1-164-941-11	CERAMIC CHIP	0.0047uF	10%	16V
C3211	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3212	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3213	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C3214	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3215	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3216	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3217	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3218	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3301	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3302	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3303	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3305	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3306	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3307	1-164-850-11	CERAMIC CHIP	10PF	0.50PF	16V
C3308	1-164-850-11	CERAMIC CHIP	10PF	0.50PF	16V
C3309	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3310	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C3311	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3312	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3313	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C3314	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C3315	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V

Ref. No.	Part No.	Description			Remarks
C3316	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C3317	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3318	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3319	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C3320	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C3321	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3322	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C3323	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3324	1-119-923-81	CERAMIC CHIP	0.047uF	10%	10V
C3325	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C3326	1-125-838-11	CERAMIC CHIP	2.2uF	10%	6.3V
C3327	1-119-750-11	TANTAL. CHIP	22uF	20%	6.3V
C3328	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3329	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3331	1-135-201-11	TANTALUM CHIP	10uF	20%	4V
C3332	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3333	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C3334	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3335	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3337	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C3338	1-164-882-11	CERAMIC CHIP	220PF	5%	16V
C3341	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C3342	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C3343	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C3345	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C3346	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C3348	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C3349	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C3350	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C3601	1-135-201-11	TANTALUM CHIP	10uF	20%	4V
C3603	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3604	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C3608	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3610	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C3611	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C3612	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C3613	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3614	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C3615	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3616	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C3617	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C3618	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C3619	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3620	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3621	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3622	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C3626	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3628	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3629	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3630	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3631	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3632	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3633	1-127-688-21	TANTAL. CHIP	10uF	20%	6.3V
C3634	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3636	1-164-858-11	CERAMIC CHIP	22PF	5%	16V
C3701	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3704	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C3705	1-110-501-11	CERAMIC CHIP	0.33uF	10%	16V
C3706	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3707	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C3708	1-125-838-11	CERAMIC CHIP	2.2uF	10%	6.3V
C3709	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C3710	1-125-838-11	CERAMIC CHIP	2.2uF	10%	6.3V
C3711	1-125-838-11	CERAMIC CHIP	2.2uF	10%	6.3V
C3712	1-125-838-11	CERAMIC CHIP	2.2uF	10%	6.3V
C3713	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C3714	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C3715	1-110-501-11	CERAMIC CHIP	0.33uF	10%	16V
C3716	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3717	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C3718	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3719	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3723	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3724	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3728	1-125-838-11	CERAMIC CHIP	2.2uF	10%	6.3V
C3729	1-125-838-11	CERAMIC CHIP	2.2uF	10%	6.3V
C3730	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3731	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3732	1-128-964-91	TANTAL. CHIP	100uF	20%	6.3V
C3733	1-128-964-91	TANTAL. CHIP	100uF	20%	6.3V
C3734	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C3735	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C3737	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3738	1-127-688-21	TANTAL. CHIP	10uF	20%	6.3V
C3739	1-127-688-21	TANTAL. CHIP	10uF	20%	6.3V
C3740	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3741	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C3742	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C3743	1-127-688-21	TANTAL. CHIP	10uF	20%	6.3V
C3744	1-127-688-21	TANTAL. CHIP	10uF	20%	6.3V
C3745	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C3746	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C3747	1-128-964-91	TANTAL. CHIP	100uF	20%	6.3V
C3748	1-127-688-21	TANTAL. CHIP	10uF	20%	6.3V
C3749	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3750	1-128-964-91	TANTAL. CHIP	100uF	20%	6.3V
C3751	1-128-964-91	TANTAL. CHIP	100uF	20%	6.3V
C3752	1-128-964-91	TANTAL. CHIP	100uF	20%	6.3V
C3901	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V (D200E/D800E)
C3902	1-135-201-11	TANTALUM CHIP	10uF	20%	4V (D200/D800)
C3903	1-127-688-21	TANTAL. CHIP	10uF	20%	6.3V (D200/D800)
C3904	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3905	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C3906	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C3908	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C3909	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3910	1-119-660-11	TANTAL. CHIP	4.7uF	20%	6.3V
C3911	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3912	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3913	1-164-668-11	CERAMIC CHIP	510PF	5%	50V
C3914	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C3915	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3916	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C3917	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3918	1-164-844-11	CERAMIC CHIP	4PF	0.25PF	16V

Ref. No.	Part No.	Description			Remarks
C3919	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C3920	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C3921	1-164-862-11	CERAMIC CHIP	33PF	5%	16V
C3922	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C3923	1-164-864-11	CERAMIC CHIP	39PF	5%	16V
C3924	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C3925	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3926	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3927	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3928	1-104-847-11	TANTAL. CHIP	22uF	20%	4V
C3929	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3934	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C3935	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3936	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4401	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C4402	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C4403	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C4404	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C4405	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
C4406	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
C4407	1-119-923-81	CERAMIC CHIP	0.047uF	10%	10V
C4408	1-104-912-11	TANTAL. CHIP	3.3uF	10%	6.3V
C4409	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C4410	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C4411	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C4412	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C4413	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C4414	1-164-933-11	CERAMIC CHIP	220PF	10%	16V
C4415	1-164-935-11	CERAMIC CHIP	470PF	10%	16V
C4416	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C4417	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C4418	1-164-935-11	CERAMIC CHIP	470PF	10%	16V
C4419	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C4420	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C4421	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C4424	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C4425	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
C4426	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4427	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4428	1-119-923-81	CERAMIC CHIP	0.047uF	10%	10V
C4429	1-119-923-81	CERAMIC CHIP	0.047uF	10%	10V
C4430	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C4431	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C4432	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4433	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C4434	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C4435	1-164-935-11	CERAMIC CHIP	470PF	10%	16V
C4436	1-164-935-11	CERAMIC CHIP	470PF	10%	16V
C4501	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C4504	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C4505	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4506	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4507	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4508	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4509	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4510	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4802	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C4803	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C4804	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C4805	1-125-822-11	TANTALUM	10uF	20%	10V

Ref. No.	Part No.	Description			Remarks
C4806	1-119-749-11	TANTAL. CHIP	33uF	20%	4V
C4807	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C4808	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4809	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4810	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4812	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4813	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4814	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4816	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C4817	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C4819	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
C4820	1-164-942-11	CERAMIC CHIP	0.0068uF	10%	16V
C4821	1-164-858-11	CERAMIC CHIP	22PF	5%	16V
C4822	1-164-856-81	CERAMIC CHIP	18PF	5%	16V
C4823	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C4824	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C4825	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C4827	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4902	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C4903	1-164-850-11	CERAMIC CHIP	10PF	0.50PF	16V
C4904	1-164-850-11	CERAMIC CHIP	10PF	0.50PF	16V
C4905	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4906	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C4907	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C4911	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C5701	1-135-201-11	TANTALUM CHIP	10uF	20%	4V
C5702	1-135-201-11	TANTALUM CHIP	10uF	20%	4V
C5704	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C5705	1-104-847-11	TANTAL. CHIP	22uF	20%	4V
C5706	1-127-688-21	TANTAL. CHIP	10uF	20%	6.3V
C5709	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C5711	1-110-569-11	TANTAL. CHIP	47uF	20%	6.3V
C5712	1-110-569-11	TANTAL. CHIP	47uF	20%	6.3V
C5713	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C5715	1-104-912-11	TANTAL. CHIP	3.3uF	20%	4V
C5719	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C5721	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	16V
C5722	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C5723	1-119-750-11	TANTAL. CHIP	22uF	20%	6.3V
C5724	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C5725	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C5728	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C5730	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C5731	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C5732	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C5733	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C5734	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C5735	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C5736	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C5737	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C5738	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C5739	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C5740	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C5741	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C5742	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C5743	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C5744	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C5745	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C5746	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C5747	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V

Ref. No.	Part No.	Description			Remarks
C5748	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C5749	1-164-870-11	CERAMIC CHIP	68PF	5%	16V
C5750	1-135-201-11	TANTALUM CHIP	10uF	20%	4V
C5751	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C5752	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C5753	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C5754	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C5755	1-164-942-11	CERAMIC CHIP	0.0068uF	10%	16V
C5756	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C5757	1-164-942-11	CERAMIC CHIP	0.0068uF	10%	16V
C5760	1-110-569-11	TANTAL. CHIP	47uF	20%	6.3V
C5761	1-125-838-11	CERAMIC CHIP	2.2uF	10%	6.3V
C5762	1-125-838-11	CERAMIC CHIP	2.2uF	10%	6.3V
C5763	1-125-838-11	CERAMIC CHIP	2.2uF	10%	6.3V
C5764	1-125-838-11	CERAMIC CHIP	2.2uF	10%	6.3V
C5765	1-113-682-11	TANTAL. CHIP	33uF	20%	10V (D800/D800E)
C5766	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V (D800/D800E)
C5767	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V (D800/D800E)
C5768	1-127-688-21	TANTAL. CHIP	10uF	20%	6.3V (D800/D800E)
C5769	1-127-688-21	TANTAL. CHIP	10uF	20%	6.3V (D800/D800E)
C5770	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V (D800/D800E)
C5771	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V (D800/D800E)
		< CONNECTOR >			
CN921	1-691-542-21	CONNECTOR, BOARD TO BOARD 48P			
CN923	1-774-932-21	CONNECTOR, FFC/FPC (ZIF) 32P (D800/D800E)			
CN922	1-778-597-21	CONNECTOR, BOARD TO BOARD 50P			
CN924	1-691-374-11	CONNECTOR, FFC/FPC 10P			
CN926	1-766-759-11	CONNECTOR, FFC/FPC 4P			
CN927	1-766-340-21	CONNECTOR, FFC/FPC 10P			
CN929	1-764-704-21	CONNECTOR, FFC/FPC (LIF) 5P			
CN931	1-770-543-21	CONNECTOR, FFC/FPC 40P			
CN933	1-766-350-21	CONNECTOR, FFC/FPC 20P			
CN3101	1-766-346-21	CONNECTOR, FFC/FPC 16P			
CN4401	1-766-644-21	CONNECTOR, FFC/FPC 8P			
CN4402	1-766-340-21	CONNECTOR, FFC/FPC 10P			
CN4403	1-766-342-21	CONNECTOR, FFC/FPC 12P			
CN4404	1-766-345-21	CONNECTOR, FFC/FPC 15P			
		< DIODE >			
D901	8-719-421-27	DIODE MA728-(K8).S0			
D1501	8-713-103-84	DIODE 1T379-01-T8A			
D2201	8-719-055-86	DIODE KV1470TL1-3			
D2202	8-719-055-86	DIODE KV1470TL1-3			
D3301	8-719-992-02	DIODE RB705D-T146			
D3302	8-719-055-86	DIODE KV1470TL1-3			
D3303	8-719-992-02	DIODE RB705D-T146			
D3304	8-719-055-86	DIODE KV1470TL1-3			
D4401	8-719-075-12	DIODE MA3XD21001S0			
D4801	8-719-073-01	DIODE MA111-(K8).S0			
D4802	8-719-073-01	DIODE MA111-(K8).S0			
D4803	8-719-073-01	DIODE MA111-(K8).S0			
D4804	8-719-073-01	DIODE MA111-(K8).S0			

Ref. No.	Part No.	Description		Remarks
		< FERRITE BEAD >		
FB1501	1-414-760-21	FERRITE	0UH	
FB1502	1-500-284-21	INDUCTOR	0UH	
FB1503	1-500-284-21	INDUCTOR	0UH	
FB1504	1-414-760-21	FERRITE	0UH	
FB2202	1-414-760-21	FERRITE	0UH	
FB2203	1-414-760-21	FERRITE	0UH	
FB2204	1-414-760-21	FERRITE	0UH	
FB2205	1-414-760-21	FERRITE	0UH	
FB2291	1-414-760-21	FERRITE	0UH	
FB3303	1-414-760-21	FERRITE	0UH	
FB3304	1-414-760-21	FERRITE	0UH	
FB3307	1-414-760-21	FERRITE	0UH	
FB3601	1-414-760-21	FERRITE	0UH	
FB3701	1-414-760-21	FERRITE	0UH	
FB4501	1-414-760-21	FERRITE	0UH	
FB4801	1-414-760-21	FERRITE	0UH	
FB4901	1-414-760-21	FERRITE	0UH	
		< IC >		
IC901	8-759-580-27	IC	S-81236SGUP-DQ7-T1	
IC1302	8-759-652-10	IC	TK11119SCL	
IC1303	8-759-650-28	IC	RN5RZ59BA-TL	
IC1502	8-759-684-90	IC	VSP2200Y-1/2K	
IC1504	8-759-243-19	IC	TC7SU04F (TE85R)	
IC1505	8-759-447-77	IC	TC7WH74FU (TE12R)	
IC2201	8-759-670-78	IC	HG75C012SFL	
IC2202	8-759-058-60	IC	TC7SU04FU (TE85R)	
IC2291	8-759-169-02	IC	MB88344BPFV-G-BND-ER	
IC3101	8-752-086-52	IC	CXA2071R-T4	
IC3102	8-759-195-81	IC	TC7S86FU (TE85R)	
IC3103	8-752-086-53	IC	CXA2072R-T4	
IC3201	8-752-093-69	IC	CXA3265R-T4	
IC3202	8-759-075-70	IC	TA75S393F-TE85R	
IC3301	8-759-650-74	IC	CAIN	
IC3302	8-759-678-25	IC	MB90099PFV-G-104-BND-ER	
IC3303	8-759-566-52	IC	SN104266PN-TEB	
IC3603	8-759-653-60	IC	MB87L1241PFV-G-BND-ER	
IC3701	8-759-599-37	IC	AN2225FHQ-EB	
IC3702	8-759-284-49	IC	NJM2285V-TE2	
IC3703	8-759-433-44	IC	MM1031XML	
IC3901	8-759-498-52	IC	LA9511WL-TBM (D200/D800)	
IC3901	8-759-566-96	IC	AN2920FHQ-EB (D200E/D800E)	
IC4401	8-759-640-85	IC	CXA8096R-TBM	
IC4501	8-759-684-49	IC	MB91192PFF-G-116-BND-ER	
IC4502	8-759-593-47	IC	AK6417AM-E2	
IC4801	8-759-424-79	IC	S-8423YFS-T2	
IC4802	8-759-642-45	IC	TL1596CPWR	
IC4803	8-759-697-34	IC	S579640PZ-TEB	
IC4901	8-759-445-94	IC	AK6480AM-E2	
IC4902	8-759-686-05	IC	MB91192PFF-G-117-BND-ER	
IC5701	8-752-093-72	IC	CXA3284R-T6	
IC5702	8-759-647-71	IC	AK4550VT-E2	
IC5703	8-759-075-69	IC	NJU4066BV (TE2)	
IC5704	8-759-676-19	IC	NJW1105VF1 (TE2) (D800/D800E)	

Ref. No.	Part No.	Description	Remarks
		< COIL >	
L1306	1-412-056-11	INDUCTOR	4.7uH
L1307	1-412-056-11	INDUCTOR	4.7uH
L1308	1-469-524-91	INDUCTOR	4.7uH
L1309	1-469-524-91	INDUCTOR	4.7uH (D800/D800E)
L1311	1-469-524-91	INDUCTOR	4.7uH
L1313	1-469-524-91	INDUCTOR	4.7uH
L1314	1-469-524-91	INDUCTOR	4.7uH
L1315	1-469-524-91	INDUCTOR	4.7uH (D800/D800E)
L1316	1-414-400-11	INDUCTOR	22uH
L1320	1-469-526-91	INDUCTOR	22uH (D800/D800E)
L1321	1-469-524-91	INDUCTOR	4.7uH
L1501	1-469-525-91	INDUCTOR	10uH
L2201	1-469-525-91	INDUCTOR	10uH
L2202	1-469-525-91	INDUCTOR	10uH
L2203	1-469-525-91	INDUCTOR	10uH
L2204	1-469-525-91	INDUCTOR	10uH
L2207	1-412-945-11	INDUCTOR	3.3uH
L2208	1-469-525-91	INDUCTOR	10uH
L2209	1-469-525-91	INDUCTOR	10uH
L2291	1-469-525-91	INDUCTOR	10uH
L3102	1-469-525-91	INDUCTOR	10uH
L3103	1-469-525-91	INDUCTOR	10uH
L3104	1-469-525-91	INDUCTOR	10uH
L3105	1-414-406-11	INDUCTOR	220uH
L3106	1-412-952-11	INDUCTOR	12uH
L3201	1-469-526-91	INDUCTOR	22uH
L3303	1-412-936-11	INDUCTOR	0.56uH
L3304	1-414-246-11	INDUCTOR	1.8uH
L3305	1-469-525-91	INDUCTOR	10uH
L3306	1-469-525-91	INDUCTOR	10uH
L3307	1-469-525-91	INDUCTOR	10uH
L3601	1-469-525-91	INDUCTOR	10uH
L3602	1-469-525-91	INDUCTOR	10uH
L3701	1-469-525-91	INDUCTOR	10uH
L3705	1-469-525-91	INDUCTOR	10uH
L3706	1-469-525-91	INDUCTOR	10uH
L3707	1-469-525-91	INDUCTOR	10uH
L3901	1-469-525-91	INDUCTOR	10uH
L3902	1-412-948-11	INDUCTOR	5.6uH
L3903	1-412-957-11	INDUCTOR	33uH
L3904	1-412-957-11	INDUCTOR	33uH
L5701	1-414-754-11	INDUCTOR	10uH
		< TRANSISTOR >	
Q901	8-729-141-48	TRANSISTOR	2SB624-T1BV4
Q902	8-729-042-26	TRANSISTOR	2SB1462J-QR (K8).SO
Q903	8-729-037-72	TRANSISTOR	UN9211J-(K8).SO
Q904	8-729-101-07	TRANSISTOR	2SB798-T1-DLDK
Q905	8-729-037-52	TRANSISTOR	2SC4738F-Y/GR (TPL3)
Q906	8-729-042-72	TRANSISTOR	RN1107F (TPL3)
Q907	8-729-042-72	TRANSISTOR	RN1107F (TPL3)
Q908	8-729-042-72	TRANSISTOR	RN1107F (TPL3)
Q1322	8-729-037-53	TRANSISTOR	2SA1832F-Y/GR (TPL3) (D800/D800E)
Q1324	8-729-037-52	TRANSISTOR	2SC4738F-Y/GR (TPL3) (D800/D800E)
Q1326	8-729-037-53	TRANSISTOR	2SA1832F-Y/GR (TPL3) (D800/D800E)
Q2204	8-729-037-53	TRANSISTOR	2SA1832F-Y/GR (TPL3)
Q2206	8-729-037-52	TRANSISTOR	2SC4738F-Y/GR (TPL3)
Q3102	8-729-037-53	TRANSISTOR	2SA1832F-Y/GR (TPL3)
Q3103	8-729-042-29	TRANSISTOR	RN1104F (TPL3)
Q3104	8-729-037-52	TRANSISTOR	2SC4738F-Y/GR (TPL3)
Q3105	8-729-042-29	TRANSISTOR	RN1104F (TPL3)
Q3106	8-729-042-29	TRANSISTOR	RN1104F (TPL3)
Q3107	8-729-037-52	TRANSISTOR	2SC4738F-Y/GR (TPL3)
Q3108	8-729-037-53	TRANSISTOR	2SA1832F-Y/GR (TPL3)
Q3109	8-729-042-58	TRANSISTOR	RN2102F (TPL3)
Q3110	8-729-042-58	TRANSISTOR	RN2102F (TPL3)
Q3111	8-729-037-53	TRANSISTOR	2SA1832F-Y/GR (TPL3)
Q3112	8-729-037-52	TRANSISTOR	2SC4738F-Y/GR (TPL3)
Q3113	8-729-037-52	TRANSISTOR	2SC4738F-Y/GR (TPL3)
Q3114	8-729-037-52	TRANSISTOR	2SC4738F-Y/GR (TPL3)
Q3115	8-729-037-52	TRANSISTOR	2SC4738F-Y/GR (TPL3)
Q3116	8-729-047-19	TRANSISTOR	2SA1965-S-TL
Q3201	8-729-042-29	TRANSISTOR	RN1104F (TPL3)
Q3302	8-729-037-53	TRANSISTOR	2SA1832F-Y/GR (TPL3) (D800/D800E)
Q3304	8-729-037-53	TRANSISTOR	2SA1832F-Y/GR (TPL3) (D800/D800E)
Q3306	8-729-037-53	TRANSISTOR	2SA1832F-Y/GR (TPL3) (D800/D800E)
Q3307	8-729-037-53	TRANSISTOR	2SA1832F-Y/GR (TPL3)
Q3308	8-729-037-53	TRANSISTOR	2SA1832F-Y/GR (TPL3)
Q3602	8-729-037-53	TRANSISTOR	2SA1832F-Y/GR (TPL3)
Q3603	8-729-037-52	TRANSISTOR	2SC4738F-Y/GR (TPL3)
Q3604	8-729-807-86	TRANSISTOR	2SB1295-UL5/6-TB
Q3605	8-729-042-29	TRANSISTOR	RN1104F (TPL3)
Q3606	8-729-037-53	TRANSISTOR	2SA1832F-Y/GR (TPL3)
Q3701	8-729-037-52	TRANSISTOR	2SC4738F-Y/GR (TPL3)
Q3902	8-729-122-63	TRANSISTOR	2SA1226-T1E4
Q3903	8-729-037-53	TRANSISTOR	2SA1832F-Y/GR (TPL3)
Q4401	8-729-037-52	TRANSISTOR	2SC4738F-Y/GR (TPL3)
Q4402	8-729-042-29	TRANSISTOR	RN1104F (TPL3)
Q4802	8-729-037-52	TRANSISTOR	2SC4738F-Y/GR (TPL3)
Q4803	8-729-042-29	TRANSISTOR	RN1104F (TPL3)
Q4804	8-729-041-43	TRANSISTOR	HN1L02FU (TE85R)
Q4805	8-729-042-29	TRANSISTOR	RN1104F (TPL3)
Q4806	8-729-042-58	TRANSISTOR	RN2102F (TPL3)
Q4808	8-729-042-72	TRANSISTOR	RN1107F (TPL3)
Q4809	8-729-045-86	TRANSISTOR	RN2107F (TPL3)
Q4810	8-729-042-72	TRANSISTOR	RN1107F (TPL3)
Q4811	8-729-045-86	TRANSISTOR	RN2107F (TPL3)
Q4812	8-729-042-72	TRANSISTOR	RN1107F (TPL3)
Q5701	8-729-042-74	TRANSISTOR	RN1110F (TPL3)
Q5703	8-729-042-74	TRANSISTOR	RN1110F (TPL3)
Q5704	8-729-042-74	TRANSISTOR	RN1110F (TPL3)
Q5706	8-729-042-74	TRANSISTOR	RN1110F (TPL3)
Q5708	8-729-037-63	TRANSISTOR	RN2111F (TPL3)
Q5716	8-729-037-74	TRANSISTOR	UN9213J-(K8).SO
Q5717	8-729-042-72	TRANSISTOR	UN9214J-(K8).SO (D800/D800E)
Q5718	8-729-037-72	TRANSISTOR	UN9211J-(K8).SO
Q5721	8-729-042-74	TRANSISTOR	RN1110F (TPL3)

Ref. No.	Part No.	Description			Remarks
		< RESISTOR >			
R901	1-218-934-11	RES-CHIP	27	5%	1/16W
R902	1-216-311-00	METAL CHIP	6.8	5%	1/10W
R903	1-216-089-11	RES-CHIP	47K	5%	1/10W
R904	1-216-049-11	RES-CHIP	1K	5%	1/10W
R907	1-218-990-11	SHORT	0		
R908	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R909	1-218-965-11	RES-CHIP	10K	5%	1/16W
R910	1-218-977-11	RES-CHIP	100K	5%	1/16W
R911	1-218-965-11	RES-CHIP	10K	5%	1/16W (D800)
R911	1-218-973-11	RES-CHIP	47K	5%	1/16W (D800E)
R911	1-218-977-11	RES-CHIP	100K	5%	1/16W (D200/D200E)
R912	1-216-813-11	METAL CHIP	220	5%	1/16W
R913	1-216-813-11	METAL CHIP	220	5%	1/16W
R914	1-216-813-11	METAL CHIP	220	5%	1/16W
R922	1-218-965-11	RES-CHIP	10K	5%	1/16W (D200E)
R922	1-218-973-11	RES-CHIP	47K	5%	1/16W (D200)
R922	1-218-977-11	RES-CHIP	100K	5%	1/16W (D800/D800E)
R923	1-216-138-00	METAL CHIP	3.3	5%	1/8W
R924	1-216-830-11	METAL CHIP	5.6K	5%	1/16W
R925	1-216-820-11	METAL CHIP	820	5%	1/16W
R926	1-216-836-11	METAL CHIP	18K	5%	1/16W
R1308	1-218-990-11	SHORT	0		
R1315	1-218-990-11	SHORT	0		
R1335	1-218-977-11	RES-CHIP	100K	5%	1/16W (D800/D800E)
R1337	1-218-977-11	RES-CHIP	100K	5%	1/16W (D800/D800E)
R1341	1-218-961-11	RES-CHIP	4.7K	5%	1/16W (D800/D800E)
R1342	1-208-943-11	METAL CHIP	220K	0.5%	1/16W (D800/D800E)
R1343	1-208-931-11	METAL CHIP	68K	0.5%	1/16W (D800/D800E)
R1504	1-218-941-11	RES-CHIP	100	5%	1/16W
R1505	1-218-941-11	RES-CHIP	100	5%	1/16W
R1512	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1514	1-218-990-11	SHORT	0		
R1520	1-218-990-11	SHORT	0		
R1521	1-218-989-11	RES-CHIP	1M	5%	1/16W
R1522	1-218-990-11	SHORT	0		
R1523	1-218-990-11	SHORT	0		
R1524	1-218-990-11	SHORT	0		
R1525	1-218-990-11	SHORT	0		
R1526	1-218-990-11	SHORT	0		
R2205	1-218-965-11	RES-CHIP	10K	5%	1/16W
R2206	1-218-977-11	RES-CHIP	100K	5%	1/16W
R2208	1-218-990-11	SHORT	0		
R2209	1-218-965-11	RES-CHIP	10K	5%	1/16W
R2210	1-218-954-11	RES-CHIP	1.2K	5%	1/16W
R2211	1-218-990-11	SHORT	0		
R2213	1-218-962-11	RES-CHIP	5.6K	5%	1/16W
R2215	1-218-953-11	RES-CHIP	1K	5%	1/16W
R2216	1-218-963-11	RES-CHIP	6.8K	5%	1/16W
R2218	1-218-949-11	RES-CHIP	470	5%	1/16W
R2219	1-218-941-11	RES-CHIP	100	5%	1/16W
R2220	1-218-972-11	RES-CHIP	39K	5%	1/16W
R2221	1-218-952-11	RES-CHIP	820	5%	1/16W
R2222	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R2223	1-218-964-11	RES-CHIP	8.2K	5%	1/16W
R2224	1-218-966-11	RES-CHIP	12K	5%	1/16W
R2225	1-218-949-11	RES-CHIP	470	5%	1/16W
R2230	1-218-990-11	SHORT	0		
R2240	1-218-989-11	RES-CHIP	1M	5%	1/16W
R2242	1-218-967-11	RES-CHIP	15K	5%	1/16W
R2243	1-218-967-11	RES-CHIP	15K	5%	1/16W
R2244	1-218-966-11	RES-CHIP	12K	5%	1/16W
R2245	1-218-949-11	RES-CHIP	470	5%	1/16W
R2247	1-218-953-11	RES-CHIP	1K	5%	1/16W
R2248	1-218-965-11	RES-CHIP	10K	5%	1/16W
R2254	1-218-990-11	SHORT	0		
R2255	1-218-990-11	SHORT	0		
R2256	1-216-807-11	METAL CHIP	68	5%	1/16W
R3103	1-218-965-11	RES-CHIP	10K	5%	1/16W
R3104	1-218-963-11	RES-CHIP	6.8K	5%	1/16W
R3105	1-218-990-11	SHORT	0		
R3106	1-218-990-11	SHORT	0		
R3107	1-218-979-11	RES-CHIP	150K	5%	1/16W
R3108	1-218-989-11	RES-CHIP	1M	5%	1/16W
R3109	1-218-966-11	RES-CHIP	12K	5%	1/16W
R3110	1-218-965-11	RES-CHIP	10K	5%	1/16W (D200/D200E:AEP,E/D800/D800E)
R3111	1-218-949-11	RES-CHIP	470	5%	1/16W (D200/D200E:AEP,E/D800/D800E)
R3112	1-218-939-11	RES-CHIP	68	5%	1/16W (D200/D200E:AEP,E/D800/D800E)
R3113	1-218-966-11	RES-CHIP	12K	5%	1/16W (D200/D200E:AEP,E/D800/D800E)
R3114	1-218-961-11	RES-CHIP	4.7K	5%	1/16W (D200/D200E:AEP,E/D800/D800E)
R3115	1-218-965-11	RES-CHIP	10K	5%	1/16W (D200/D200E:AEP,E/D800/D800E)
R3116	1-218-990-11	SHORT	0		(D200/D200E:AEP,E/D800/D800E)
R3117	1-218-969-11	RES-CHIP	22K	5%	1/16W (D200/D200E:AEP,E/D800/D800E)
R3118	1-220-196-11	METAL CHIP	13K	0.5%	1/16W (D200/D200E:AEP,E/D800/D800E)
R3119	1-218-970-11	METAL CHIP	27K	0.5%	1/16W (D200/D200E:AEP,E/D800/D800E)
R3120	1-208-715-11	METAL CHIP	22K	0.5%	1/16W (D200/D200E:AEP,E/D800/D800E)
R3121	1-208-709-11	METAL CHIP	12K	0.5%	1/16W (D200/D200E:AEP,E/D800/D800E)
R3122	1-208-931-11	METAL CHIP	68K	0.5%	1/16W (D200/D200E:AEP,E/D800/D800E)
R3123	1-218-969-11	RES-CHIP	22K	5%	1/16W (D200/D200E:AEP,E/D800/D800E)
R3124	1-218-969-11	RES-CHIP	22K	5%	1/16W (D200/D200E:AEP,E/D800/D800E)
R3125	1-218-945-11	METAL CHIP	220	0.5%	1/16W (D200/D200E:AEP,E/D800/D800E)

Ref. No.	Part No.	Description				Remarks
R3126	1-218-969-11	RES-CHIP	22K	5%	1/16W	(D200/D200E:AEP,E/D800/D800E)
R3127	1-218-971-11	RES-CHIP	33K	5%	1/16W	(D200/D200E:AEP,E/D800/D800E)
R3128	1-218-965-11	RES-CHIP	10K	5%	1/16W	(D200/D200E:AEP,E/D800/D800E)
R3129	1-218-945-11	METAL CHIP	220	0.5%	1/16W	(D200/D200E:AEP,E/D800/D800E)
R3130	1-218-945-11	METAL CHIP	220	0.5%	1/16W	(D200/D200E:AEP,E/D800/D800E)
R3131	1-218-945-11	METAL CHIP	220	0.5%	1/16W	(D200/D200E:AEP,E/D800/D800E)
R3132	1-218-946-11	RES-CHIP	270	5%	1/16W	(D200/D200E:AEP,E/D800/D800E)
R3133	1-218-945-11	RES-CHIP	220	5%	1/16W	(D200/D200E:AEP,E/D800/D800E)
R3136	1-218-957-11	RES-CHIP	2.2K	5%	1/16W	(D200/D200E:AEP,E/D800/D800E)
R3137	1-218-961-11	RES-CHIP	4.7K	5%	1/16W	(D200/D200E:AEP,E/D800/D800E)
R3138	1-218-941-11	RES-CHIP	100	5%	1/16W	(D200/D200E:AEP,E/D800/D800E)
R3139	1-218-960-11	RES-CHIP	3.9K	5%	1/16W	(D200/D200E:AEP,E/D800/D800E)
R3140	1-218-960-11	RES-CHIP	3.9K	5%	1/16W	(D200/D200E:AEP,E/D800/D800E)
R3141	1-218-960-11	RES-CHIP	3.9K	5%	1/16W	(D200/D200E:AEP,E/D800/D800E)
R3142	1-218-960-11	RES-CHIP	3.9K	5%	1/16W	(D200/D200E:AEP,E/D800/D800E)
R3143	1-218-938-11	RES-CHIP	56	5%	1/16W	(D200/D200E:AEP,E/D800/D800E)
R3144	1-218-950-11	RES-CHIP	560	5%	1/16W	(D200/D200E:AEP,E/D800/D800E)
R3146	1-216-295-11	SHORT	0			(D200/D200E:AEP,E/D800/D800E)
R3205	1-218-985-11	RES-CHIP	470K	5%	1/16W	(D200/D200E:AEP,E/D800/D800E)
R3206	1-218-985-11	RES-CHIP	470K	5%	1/16W	(D200/D200E:AEP,E/D800/D800E)
R3210	1-218-965-11	RES-CHIP	10K	5%	1/16W	(D200/D200E:AEP,E/D800/D800E)
R3211	1-218-990-11	SHORT	0			(D200/D200E:AEP,E/D800/D800E)
R3212	1-218-986-11	RES-CHIP	560K	5%	1/16W	(D200/D200E:AEP,E/D800/D800E)
R3213	1-218-985-11	RES-CHIP	470K	5%	1/16W	(D200/D200E:AEP,E/D800/D800E)
R3214	1-218-981-11	RES-CHIP	220K	5%	1/16W	(D200/D200E:AEP,E/D800/D800E)
R3215	1-208-939-11	METAL CHIP	150K	0.5%	1/16W	(D200/D200E:AEP,E/D800/D800E)
R3305	1-218-990-11	SHORT	0			(D200/D200E:AEP,E/D800/D800E)
R3306	1-216-864-11	METAL CHIP	0	5%	1/16W	(D200/D200E:AEP,E/D800/D800E)
R3308	1-216-864-11	METAL CHIP	0	5%	1/16W	(D200/D200E:AEP,E/D800/D800E)
R3309	1-218-990-11	SHORT	0			(D200/D200E:AEP,E/D800/D800E)
R3310	1-218-965-11	RES-CHIP	10K	5%	1/16W	(D200/D200E:AEP,E/D800/D800E)
R3311	1-218-965-11	RES-CHIP	10K	5%	1/16W	(D200/D200E:AEP,E/D800/D800E)
R3312	1-218-946-11	RES-CHIP	270	5%	1/16W	(D200/D200E:AEP,E/D800/D800E)
R3313	1-218-990-11	SHORT	0			(D200/D200E:AEP,E/D800/D800E)
R3314	1-218-990-11	SHORT	0			(D200/D200E:AEP,E/D800/D800E)
R3315	1-218-959-11	RES-CHIP	3.3K	5%	1/16W	(D200/D200E:AEP,E/D800/D800E)
R3316	1-218-959-11	RES-CHIP	3.3K	5%	1/16W	(D200/D200E:AEP,E/D800/D800E)
R3317	1-218-961-11	RES-CHIP	4.7K	5%	1/16W	(D200/D200E:AEP,E/D800/D800E)
R3318	1-218-965-11	RES-CHIP	10K	5%	1/16W	(D200/D200E:AEP,E/D800/D800E)
R3319	1-218-965-11	RES-CHIP	10K	5%	1/16W	(D200/D200E:AEP,E/D800/D800E)
R3320	1-218-957-11	RES-CHIP	2.2K	5%	1/16W	(D200/D200E:AEP,E/D800/D800E)
R3321	1-218-959-11	RES-CHIP	3.3K	5%	1/16W	(D200/D200E:AEP,E/D800/D800E)
R3322	1-218-941-11	RES-CHIP	100	5%	1/16W	(D200/D200E:AEP,E/D800/D800E)
R3323	1-218-947-11	RES-CHIP	330	5%	1/16W	(D200/D200E:AEP,E/D800/D800E)
R3324	1-218-961-11	RES-CHIP	4.7K	5%	1/16W	(D200/D200E:AEP,E/D800/D800E)
R3325	1-218-937-11	RES-CHIP	47	5%	1/16W	(D200/D200E:AEP,E/D800/D800E)
R3326	1-218-990-11	SHORT	0			(D200/D200E:AEP,E/D800/D800E)
R3328	1-208-886-81	METAL CHIP	910	0.5%	1/16W	(D800/D800E)
R3331	1-218-961-11	RES-CHIP	4.7K	5%	1/16W	(D800/D800E)
R3333	1-218-990-11	SHORT	0			(D200/D200E:AEP,E/D800/D800E)
R3334	1-208-886-81	METAL CHIP	910	0.5%	1/16W	(D800/D800E)
R3336	1-218-961-11	RES-CHIP	4.7K	5%	1/16W	(D800/D800E)
R3337	1-218-990-11	SHORT	0			
R3340	1-208-886-81	METAL CHIP	910	0.5%	1/16W	(D800/D800E)
R3343	1-218-961-11	RES-CHIP	4.7K	5%	1/16W	(D800/D800E)
R3346	1-218-990-11	SHORT	0			
R3349	1-218-990-11	SHORT	0			
R3350	1-218-990-11	SHORT	0			
R3351	1-218-946-11	RES-CHIP	270	5%	1/16W	
R3352	1-218-990-11	SHORT	0			
R3356	1-218-957-11	RES-CHIP	2.2K	5%	1/16W	
R3358	1-218-945-11	RES-CHIP	220	5%	1/16W	
R3360	1-218-957-11	RES-CHIP	2.2K	5%	1/16W	
R3361	1-208-709-11	METAL CHIP	12K	0.5%	1/16W	
R3362	1-218-990-11	SHORT	0			
R3364	1-208-709-11	METAL CHIP	12K	0.5%	1/16W	
R3365	1-218-990-11	SHORT	0			
R3367	1-218-938-11	METAL CHIP	56	0.5%	1/16W	
R3368	1-218-938-11	METAL CHIP	56	0.5%	1/16W	
R3369	1-208-707-11	METAL CHIP	10K	0.5%	1/16W	

Ref. No.	Part No.	Description			Remarks
R3370	1-218-938-11	METAL CHIP	56	0.5%	1/16W
R3371	1-208-707-11	METAL CHIP	10K	0.5%	1/16W
R3372	1-218-938-11	METAL CHIP	56	0.5%	1/16W
R3375	1-218-965-11	RES-CHIP	10K	5%	1/16W
R3376	1-218-953-11	RES-CHIP	1K	5%	1/16W
R3377	1-218-941-11	RES-CHIP	100	5%	1/16W
R3378	1-218-941-11	RES-CHIP	100	5%	1/16W
R3379	1-218-941-11	RES-CHIP	100	5%	1/16W
R3380	1-218-941-11	RES-CHIP	100	5%	1/16W
R3381	1-218-941-11	RES-CHIP	100	5%	1/16W
R3382	1-218-990-11	SHORT	0		
R3383	1-218-990-11	SHORT	0		
R3385	1-216-864-11	METAL CHIP	0	5%	1/16W
R3386	1-216-864-11	METAL CHIP	0	5%	1/16W
R3604	1-218-990-11	SHORT	0		
R3607	1-218-965-11	RES-CHIP	10K	5%	1/16W
R3609	1-218-990-11	SHORT	0		
R3611	1-218-965-11	RES-CHIP	10K	5%	1/16W
R3612	1-218-973-11	RES-CHIP	47K	5%	1/16W
R3617	1-218-951-11	RES-CHIP	680	5%	1/16W
R3618	1-218-965-11	RES-CHIP	10K	5%	1/16W
R3622	1-218-949-11	RES-CHIP	470	5%	1/16W
R3636	1-218-990-11	SHORT	0		
R3639	1-218-990-11	SHORT	0		
R3643	1-218-990-11	SHORT	0		
R3652	1-218-990-11	SHORT	0		
R3656	1-218-990-11	SHORT	0		
R3657	1-218-977-11	RES-CHIP	100K	5%	1/16W
R3658	1-218-953-11	RES-CHIP	1K	5%	1/16W
R3659	1-218-960-11	RES-CHIP	3.9K	5%	1/16W
R3660	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R3701	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R3702	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R3704	1-218-941-11	RES-CHIP	100	5%	1/16W
R3705	1-218-981-11	RES-CHIP	220K	5%	1/16W
R3712	1-218-936-11	RES-CHIP	39	5%	1/16W
R3713	1-218-935-11	RES-CHIP	33	5%	1/16W
R3714	1-218-936-11	RES-CHIP	39	5%	1/16W
R3715	1-218-935-11	RES-CHIP	33	5%	1/16W
R3716	1-218-936-11	RES-CHIP	39	5%	1/16W
R3717	1-218-935-11	RES-CHIP	33	5%	1/16W
R3721	1-208-715-11	METAL CHIP	22K	0.5%	1/16W
R3722	1-218-953-11	RES-CHIP	1K	5%	1/16W
R3724	1-218-953-11	RES-CHIP	1K	5%	1/16W
R3726	1-218-965-11	RES-CHIP	10K	5%	1/16W
R3727	1-218-953-11	RES-CHIP	1K	5%	1/16W
R3728	1-218-953-11	RES-CHIP	1K	5%	1/16W
R3729	1-218-953-11	RES-CHIP	1K	5%	1/16W
R3730	1-218-953-11	RES-CHIP	1K	5%	1/16W
R3734	1-216-295-11	SHORT	0		
R3737	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R3738	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R3739	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R3740	1-218-939-11	RES-CHIP	68	5%	1/16W
R3741	1-218-939-11	RES-CHIP	68	5%	1/16W
R3742	1-218-939-11	RES-CHIP	68	5%	1/16W
R3746	1-218-936-11	RES-CHIP	39	5%	1/16W
R3747	1-218-935-11	RES-CHIP	33	5%	1/16W
R3903	1-218-968-11	RES-CHIP	18K	5%	1/16W
R3904	1-218-961-11	RES-CHIP	4.7K	5%	1/16W

Ref. No.	Part No.	Description			Remarks
R3905	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R3908	1-218-967-11	RES-CHIP	15K	5%	1/16W
R3909	1-218-989-11	RES-CHIP	1M	5%	1/16W
R3910	1-218-990-11	SHORT	0		
R3911	1-208-715-11	METAL CHIP	22K	0.5%	1/16W
R3912	1-218-947-11	RES-CHIP	330	5%	1/16W
R3913	1-218-953-11	RES-CHIP	1K	5%	1/16W
R3916	1-218-949-11	RES-CHIP	470	5%	1/16W
R3917	1-218-979-11	RES-CHIP	150K	5%	1/16W
R3918	1-218-979-11	RES-CHIP	150K	5%	1/16W
R3919	1-218-950-11	RES-CHIP	560	5%	1/16W
R3920	1-218-963-11	RES-CHIP	6.8K	5%	1/16W
R3921	1-218-949-11	RES-CHIP	470	5%	1/16W
R3922	1-218-972-11	RES-CHIP	39K	5%	1/16W
R3923	1-218-949-11	RES-CHIP	470	5%	1/16W
R3924	1-218-949-11	RES-CHIP	470	5%	1/16W
R3936	1-218-955-11	RES-CHIP	1.5K	5%	1/16W
R4401	1-218-973-11	RES-CHIP	47K	5%	1/16W
R4402	1-218-983-11	RES-CHIP	330K	5%	1/16W
R4403	1-218-977-11	RES-CHIP	100K	5%	1/16W
R4404	1-218-977-11	RES-CHIP	100K	5%	1/16W
R4405	1-218-977-11	RES-CHIP	100K	5%	1/16W
R4406	1-218-977-11	RES-CHIP	100K	5%	1/16W
R4407	1-218-949-11	RES-CHIP	470	5%	1/16W
R4408	1-217-671-11	METAL CHIP	1	5%	1/10W
R4409	1-217-671-11	METAL CHIP	1	5%	1/10W
R4410	1-217-671-11	METAL CHIP	1	5%	1/10W
R4411	1-216-023-00	METAL CHIP	82	5%	1/10W
R4413	1-218-990-11	SHORT	0		
R4414	1-218-946-11	RES-CHIP	270	5%	1/16W
R4416	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R4417	1-208-707-11	METAL CHIP	10K	0.5%	1/16W
R4423	1-218-990-11	SHORT	0		
R4424	1-218-967-11	RES-CHIP	15K	5%	1/16W (D200/D800)
R4424	1-218-973-11	RES-CHIP	47K	5%	1/16W (D200E/D800E)
R4425	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R4426	1-218-977-11	RES-CHIP	100K	5%	1/16W
R4427	1-218-965-11	RES-CHIP	10K	5%	1/16W (D200E/D800E)
R4427	1-218-990-11	SHORT	0 (D200/D800)		
R4428	1-217-671-11	METAL CHIP	1	5%	1/10W
R4429	1-217-671-11	METAL CHIP	1	5%	1/10W
R4430	1-218-985-11	RES-CHIP	470K	5%	1/16W
R4431	1-218-967-11	RES-CHIP	15K	5%	1/16W (D200/D800)
R4431	1-218-973-11	RES-CHIP	47K	5%	1/16W (D200E/D800E)
R4432	1-218-973-11	RES-CHIP	47K	5%	1/16W
R4434	1-218-965-11	RES-CHIP	10K	5%	1/16W
R4435	1-218-965-11	RES-CHIP	10K	5%	1/16W
R4436	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R4437	1-218-990-11	SHORT	0		
R4438	1-218-990-11	SHORT	0		
R4442	1-218-990-11	SHORT	0		
R4443	1-218-990-11	SHORT	0		
R4444	1-218-990-11	SHORT	0		
R4445	1-218-990-11	SHORT	0		
R4446	1-218-990-11	SHORT	0		

Ref. No.	Part No.	Description			Remarks
R4447	1-218-971-11	RES-CHIP	33K	5%	1/16W
R4448	1-218-971-11	RES-CHIP	33K	5%	1/16W
R4502	1-218-977-11	RES-CHIP	100K	5%	1/16W
R4503	1-218-977-11	RES-CHIP	100K	5%	1/16W
R4504	1-218-977-11	RES-CHIP	100K	5%	1/16W
R4505	1-218-977-11	RES-CHIP	100K	5%	1/16W
R4507	1-218-953-11	RES-CHIP	1K	5%	1/16W
R4508	1-218-985-11	RES-CHIP	470K	5%	1/16W
R4511	1-218-953-11	RES-CHIP	1K	5%	1/16W
R4512	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R4514	1-218-977-11	RES-CHIP	100K	5%	1/16W
R4515	1-218-990-11	SHORT	0		
R4516	1-218-990-11	SHORT	0		
R4517	1-218-990-11	SHORT	0		
R4518	1-218-990-11	SHORT	0		
R4520	1-218-953-11	RES-CHIP	1K	5%	1/16W (D200/D200E)
R4521	1-218-965-11	RES-CHIP	10K	5%	1/16W
R4522	1-218-965-11	RES-CHIP	10K	5%	1/16W
R4523	1-218-985-11	RES-CHIP	470K	5%	1/16W (D800/D800E)
R4524	1-218-977-11	RES-CHIP	100K	5%	1/16W
R4525	1-218-977-11	RES-CHIP	100K	5%	1/16W
R4526	1-218-985-11	RES-CHIP	470K	5%	1/16W
R4527	1-218-977-11	RES-CHIP	100K	5%	1/16W
R4528	1-218-977-11	RES-CHIP	100K	5%	1/16W
R4529	1-218-977-11	RES-CHIP	100K	5%	1/16W
R4530	1-218-949-11	RES-CHIP	470	5%	1/16W
R4531	1-218-990-11	SHORT	0		
R4532	1-218-985-11	RES-CHIP	470K	5%	1/16W (D200/D200E)
R4802	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R4803	1-218-977-11	RES-CHIP	100K	5%	1/16W
R4805	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R4807	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R4808	1-218-985-11	RES-CHIP	470K	5%	1/16W
R4810	1-218-953-11	RES-CHIP	1K	5%	1/16W
R4811	1-218-977-11	RES-CHIP	100K	5%	1/16W
R4813	1-218-985-11	RES-CHIP	470K	5%	1/16W
R4814	1-218-985-11	RES-CHIP	470K	5%	1/16W
R4815	1-218-985-11	RES-CHIP	470K	5%	1/16W (D800/D800E)
R4816	1-218-985-11	RES-CHIP	470K	5%	1/16W
R4817	1-218-985-11	RES-CHIP	470K	5%	1/16W
R4818	1-218-985-11	RES-CHIP	470K	5%	1/16W
R4819	1-218-985-11	RES-CHIP	470K	5%	1/16W
R4820	1-218-977-11	RES-CHIP	100K	5%	1/16W
R4821	1-218-985-11	RES-CHIP	470K	5%	1/16W
R4822	1-218-973-11	RES-CHIP	47K	5%	1/16W
R4823	1-218-965-11	RES-CHIP	10K	5%	1/16W
R4824	1-218-958-11	RES-CHIP	2.7K	5%	1/16W
R4825	1-218-953-11	RES-CHIP	1K	5%	1/16W
R4826	1-218-953-11	RES-CHIP	1K	5%	1/16W
R4827	1-218-953-11	RES-CHIP	1K	5%	1/16W (D800/D800E)
R4828	1-218-990-11	SHORT	0 (D200/D200E)		
R4829	1-218-953-11	RES-CHIP	1K	5%	1/16W
R4830	1-218-953-11	RES-CHIP	1K	5%	1/16W
R4831	1-218-990-11	SHORT	0		
R4832	1-218-989-11	RES-CHIP	1M	5%	1/16W

Ref. No.	Part No.	Description			Remarks
R4833	1-218-985-11	METAL CHIP	470K	0.5%	1/16W
R4834	1-218-985-11	METAL CHIP	470K	0.5%	1/16W
R4835	1-218-989-11	METAL CHIP	1M	0.5%	1/16W
R4836	1-218-989-11	METAL CHIP	1M	0.5%	1/16W
R4837	1-218-977-11	RES-CHIP	100K	5%	1/16W
R4838	1-218-977-11	RES-CHIP	100K	5%	1/16W
R4839	1-218-977-11	RES-CHIP	100K	5%	1/16W
R4840	1-218-953-11	RES-CHIP	1K	5%	1/16W
R4841	1-218-953-11	RES-CHIP	1K	5%	1/16W
R4842	1-218-953-11	RES-CHIP	1K	5%	1/16W
R4843	1-218-953-11	RES-CHIP	1K	5%	1/16W
R4845	1-218-977-11	RES-CHIP	100K	5%	1/16W
R4846	1-218-953-11	RES-CHIP	1K	5%	1/16W
R4848	1-218-953-11	RES-CHIP	1K	5%	1/16W
R4849	1-218-953-11	RES-CHIP	1K	5%	1/16W
R4850	1-218-965-11	RES-CHIP	10K	5%	1/16W
R4851	1-218-965-11	RES-CHIP	10K	5%	1/16W
R4852	1-218-965-11	RES-CHIP	10K	5%	1/16W
R4856	1-218-965-11	RES-CHIP	10K	5%	1/16W
R4857	1-218-990-11	SHORT	0		
R4860	1-218-953-11	RES-CHIP	1K	5%	1/16W
R4861	1-218-953-11	RES-CHIP	1K	5%	1/16W
R4862	1-218-953-11	RES-CHIP	1K	5%	1/16W
R4863	1-218-973-11	RES-CHIP	47K	5%	1/16W
R4864	1-218-986-11	RES-CHIP	560K	5%	1/16W
R4866	1-218-953-11	RES-CHIP	1K	5%	1/16W
R4867	1-218-985-11	RES-CHIP	470K	5%	1/16W
R4868	1-218-985-11	RES-CHIP	470K	5%	1/16W
R4869	1-218-985-11	RES-CHIP	470K	5%	1/16W
R4870	1-218-985-11	RES-CHIP	470K	5%	1/16W
R4871	1-218-989-11	RES-CHIP	1M	5%	1/16W
R4872	1-218-977-11	RES-CHIP	100K	5%	1/16W
R4873	1-218-977-11	RES-CHIP	100K	5%	1/16W
R4874	1-218-953-11	RES-CHIP	1K	5%	1/16W
R4875	1-218-953-11	RES-CHIP	1K	5%	1/16W
R4876	1-219-570-11	RES-CHIP	10M	5%	1/16W
R4877	1-218-953-11	RES-CHIP	1K	5%	1/16W
R4878	1-218-977-11	RES-CHIP	100K	5%	1/16W
R4879	1-218-985-11	RES-CHIP	470K	5%	1/16W
R4880	1-218-985-11	RES-CHIP	470K	5%	1/16W
R4881	1-218-985-11	RES-CHIP	470K	5%	1/16W
R4882	1-218-949-11	RES-CHIP	470	5%	1/16W
R4883	1-218-990-11	SHORT	0		
R4884	1-218-990-11	SHORT	0		
R4885	1-218-953-11	RES-CHIP	1K	5%	1/16W
R4886	1-218-953-11	RES-CHIP	1K	5%	1/16W
R4887	1-218-977-11	RES-CHIP	100K	5%	1/16W
R4888	1-218-977-11	RES-CHIP	100K	5%	1/16W
R4889	1-218-990-11	SHORT	0		
R4891	1-218-990-11	SHORT	0		
R4892	1-218-990-11	SHORT	0		
R4893	1-218-985-11	RES-CHIP	470K	5%	1/16W
R4894	1-218-953-11	RES-CHIP	1K	5%	1/16W
R4901	1-218-953-11	RES-CHIP	1K	5%	1/16W
R4902	1-218-986-11	RES-CHIP	560K	5%	1/16W
R4903	1-218-990-11	SHORT	0		
R4904	1-218-977-11	RES-CHIP	100K	5%	1/16W
R4906	1-218-990-11	SHORT	0		
R4908	1-218-977-11	RES-CHIP	100K	5%	1/16W
R4910	1-218-977-11	RES-CHIP	100K	5%	1/16W

Ref. No.	Part No.	Description			Remarks
R4911	1-218-977-11	RES-CHIP	100K	5%	1/16W
R4912	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R4913	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R4914	1-218-990-11	SHORT	0		
R4917	1-218-953-11	RES-CHIP	1K	5%	1/16W
R4919	1-164-943-11	CERAMIC CHIP	0.01UF	10%	16V (Note)
R4920	1-218-965-11	RES-CHIP	10K	5%	1/16W
R4921	1-218-965-11	RES-CHIP	10K	5%	1/16W
R4922	1-218-973-11	RES-CHIP	47K	5%	1/16W
R4927	1-218-973-11	RES-CHIP	47K	5%	1/16W
R4928	1-218-977-11	RES-CHIP	100K	5%	1/16W
R4929	1-218-977-11	RES-CHIP	100K	5%	1/16W
R4930	1-218-977-11	RES-CHIP	100K	5%	1/16W
R4931	1-218-973-11	RES-CHIP	47K	5%	1/16W
R4932	1-218-973-11	RES-CHIP	47K	5%	1/16W
R4933	1-218-990-11	SHORT	0		
R4934	1-218-990-11	SHORT	0		
R4935	1-218-977-11	RES-CHIP	100K	5%	1/16W
R4936	1-218-977-11	RES-CHIP	100K	5%	1/16W
R4938	1-218-977-11	RES-CHIP	100K	5%	1/16W
R4939	1-218-977-11	RES-CHIP	100K	5%	1/16W
R4940	1-218-977-11	RES-CHIP	100K	5%	1/16W
R4941	1-218-990-11	SHORT	0		
R4942	1-218-990-11	SHORT	0		
R4945	1-218-965-11	RES-CHIP	10K	5%	1/16W
R4946	1-218-965-11	RES-CHIP	10K	5%	1/16W
R4947	1-218-990-11	SHORT	0		
R4948	1-218-990-11	SHORT	0		
R4949	1-218-990-11	SHORT	0		
R4950	1-218-990-11	SHORT	0		
R4951	1-218-990-11	SHORT	0		
R4952	1-218-990-11	SHORT	0		
R4953	1-218-990-11	SHORT	0		
R5701	1-218-990-11	SHORT	0		
R5702	1-218-990-11	SHORT	0		
R5707	1-218-953-11	RES-CHIP	1K	5%	1/16W
R5708	1-218-953-11	RES-CHIP	1K	5%	1/16W
R5709	1-216-864-11	METAL CHIP	0	5%	1/16W
R5711	1-218-941-11	RES-CHIP	100	5%	1/16W
R5712	1-218-941-11	RES-CHIP	100	5%	1/16W
R5714	1-216-864-11	METAL CHIP	0	5%	1/16W
R5720	1-218-979-11	RES-CHIP	150K	5%	1/16W
R5721	1-218-973-11	RES-CHIP	47K	5%	1/16W
R5722	1-218-990-11	SHORT	0		
R5723	1-218-990-11	SHORT	0		
R5724	1-218-985-11	RES-CHIP	470K	5%	1/16W
R5725	1-218-985-11	RES-CHIP	470K	5%	1/16W
R5726	1-218-990-11	SHORT	0		
R5727	1-218-990-11	SHORT	0		
R5729	1-218-990-11	SHORT	0		
R5730	1-218-952-11	RES-CHIP	820	5%	1/16W
R5731	1-218-949-11	RES-CHIP	470	5%	1/16W
R5732	1-218-949-11	RES-CHIP	470	5%	1/16W
R5733	1-218-985-11	RES-CHIP	470K	5%	1/16W
R5735	1-218-990-11	SHORT	0		
R5736	1-218-990-11	SHORT	0		
R5737	1-218-990-11	SHORT	0		
R5738	1-218-990-11	SHORT	0		
R5739	1-218-990-11	SHORT	0		
R5740	1-218-990-11	SHORT	0		
R5741	1-218-990-11	SHORT	0		
R5742	1-218-965-11	RES-CHIP	10K	5%	1/16W
R5743	1-218-965-11	RES-CHIP	10K	5%	1/16W
R5750	1-218-990-11	SHORT	0		
R5751	1-216-843-11	METAL CHIP	68K	5%	1/16W
R5752	1-216-843-11	METAL CHIP	68K	5%	1/16W
R5753	1-216-843-11	METAL CHIP	68K	5%	1/16W
R5754	1-216-843-11	METAL CHIP	68K	5%	1/16W
R5755	1-216-837-11	METAL CHIP	22K	5%	1/16W
R5756	1-216-837-11	METAL CHIP	22K	5%	1/16W
R5757	1-218-977-11	RES-CHIP	100K	5%	1/16W
R5758	1-218-977-11	RES-CHIP	100K	5%	1/16W
R5759	1-218-977-11	RES-CHIP	100K	5%	1/16W
R5760	1-218-977-11	RES-CHIP	100K	5%	1/16W
R5761	1-218-965-11	RES-CHIP	10K	5%	1/16W
R5762	1-218-965-11	RES-CHIP	10K	5%	1/16W
R5763	1-216-833-11	METAL CHIP	10K	5%	1/16W (D800/D800E)
R5764	1-218-973-11	RES-CHIP	47K	5%	1/16W (D800/D800E)
R5765	1-218-977-11	RES-CHIP	100K	5%	1/16W (D800/D800E)
R5766	1-218-977-11	RES-CHIP	100K	5%	1/16W (D800/D800E)
R5767	1-218-973-11	RES-CHIP	47K	5%	1/16W (D800/D800E)
R5768	1-218-973-11	RES-CHIP	47K	5%	1/16W (D800/D800E)
R5769	1-218-973-11	RES-CHIP	47K	5%	1/16W (D800/D800E)
R5770	1-218-973-11	RES-CHIP	47K	5%	1/16W (D800/D800E)
R5771	1-218-973-11	RES-CHIP	47K	5%	1/16W (D800/D800E)
R5772	1-218-949-11	RES-CHIP	470	5%	1/16W
R5773	1-218-949-11	RES-CHIP	470	5%	1/16W
R5774	1-218-965-11	RES-CHIP	10K	5%	1/16W
R5775	1-218-965-11	RES-CHIP	10K	5%	1/16W
R5776	1-216-837-11	METAL CHIP	22K	5%	1/16W
R5777	1-216-837-11	METAL CHIP	22K	5%	1/16W
R5780	1-216-829-11	METAL CHIP	4.7K	5%	1/16W (D800/D800E)
R5781	1-216-829-11	METAL CHIP	4.7K	5%	1/16W (D800/D800E)
R5783	1-216-825-11	METAL CHIP	2.2K	5%	1/16W (D800/D800E)
R5784	1-216-825-11	METAL CHIP	2.2K	5%	1/16W (D800/D800E)
		< SWITCH >			
S4801	1-692-111-11	SWITCH, KEY BOARD (RESET)			
S4802	1-762-805-21	SWITCH, PUSH (1 KEY) (EJECT)			
		< VIBRATOR >			
X1501	1-767-586-21	VIBRATOR, CRYSTAL (27MHz)			
X3301	1-767-399-11	VIBRATOR, CRYSTAL (24.576MHz)			
X4801	1-767-980-21	VIBRATOR, CERAMIC (20MHz)			
X4802	1-760-458-21	VIBRATOR, CRYSTAL (32.768KHz)			
X4901	1-760-655-41	VIBRATOR, CRYSTAL (20MHz)			

Note : Capacitor is mounted to the location where R4919 is printed.

Ref. No.	Part No.	Description	Remarks
		ACCESSORIES ***********	
⚠	1-475-599-11	ADAPTOR, AC (AC-L10A)	
⚠	1-569-008-21	ADAPTOR, CONVERSION 2P (D200E:E/D800E:E)	
	1-573-291-11	ADAPTOR, CONVERSION 21P (D200E:AEP,UK/D800E:AEP,UK)	
	1-575-334-11	CORD, CONNECTION (A/V)(1.5m)	
⚠	1-769-608-11	CORD, POWER (D200E:AEP,E/D800E:AEP,E)	
⚠	1-783-374-11	CORD, POWER (D200E:UK/D800E:UK)	
⚠	1-790-107-22	CORD, POWER (D200,D800)	
	1-790-690-11	CORD, CONNECTION (A/V CONVERTING)(1.5m)	
	3-064-176-11	MANUAL, INSTRUCTION (ENGLISH) (D800)	
	3-064-176-21	MANUAL, INSTRUCTION (FRENCH) (D800)	
	3-064-176-31	MANUAL, INSTRUCTION (SPANISH) (D800)	
	3-064-177-11	MANUAL, INSTRUCTION (ENGLISH/RUSSIAN) (D800E:AEP,UK)	
	3-064-177-21	MANUAL, INSTRUCTION (FRENCH/GERMAN) (D800E:AEP)	
	3-064-177-31	MANUAL, INSTRUCTION (SPANISH/PORTUGUESE) (D800E:AEP)	
	3-064-177-41	MANUAL, INSTRUCTION (ITALIAN/DUTCH) (D800E:AEP)	
	3-064-177-51	MANUAL, INSTRUCTION (ENGLISH/RUSSIAN) (D800E:E)	
	3-064-177-61	MANUAL, INSTRUCTION (ARABIC/PERSIAN) (D800E:E)	
	3-064-177-71	MANUAL, INSTRUCTION (SIMPLIFIED CHINESE) (D800E:E)	
	3-064-177-81	MANUAL, INSTRUCTION (FRENCH/GERMAN) (D800E:E)	
	3-064-178-11	MANUAL, INSTRUCTION (ENGLISH) (D200)	
	3-064-178-21	MANUAL, INSTRUCTION (FRENCH) (D200)	
	3-064-178-31	MANUAL, INSTRUCTION (SPANISH) (D200)	
	3-064-179-11	MANUAL, INSTRUCTION (ENGLISH/RUSSIAN) (D200E:AEP,UK)	
	3-064-179-21	MANUAL, INSTRUCTION (FRENCH/GERMAN) (D200E:AEP)	
	3-064-179-31	MANUAL, INSTRUCTION (SPANISH/PORTUGUESE) (D200E:AEP)	
	3-064-179-41	MANUAL, INSTRUCTION (ITALIAN/DUTCH) (D200E:AEP)	
	3-064-179-51	MANUAL, INSTRUCTION (ENGLISH/RUSSIAN) (D200E:E)	
	3-064-179-61	MANUAL, INSTRUCTION (ARABIC/PERSIAN) (D200E:E)	
	3-064-179-71	MANUAL, INSTRUCTION (SIMPLIFIED CHINESE) (D200E:E)	
	3-064-179-81	MANUAL, INSTRUCTION (FRENCH/GERMAN) (D200E:E)	

Note :	**Note :**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

9-929-853-11

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Personal VIDEO Products Company

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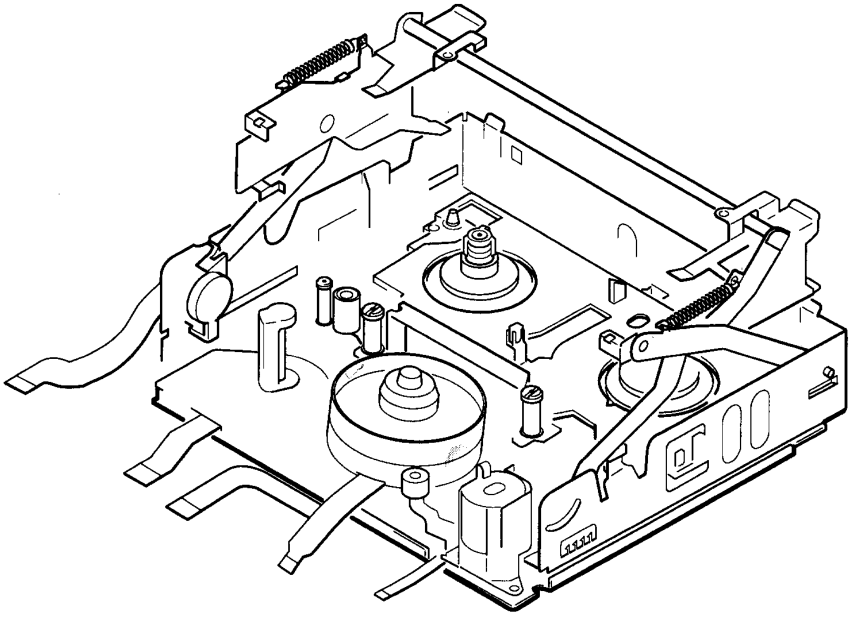
8mm Video MECHANICAL ADJUSTMENT MANUAL Ⅶ

B MECHANISM

Video8

Use this mechanical adjustment manual Ⅶ together with the service manual of the respective models.



8 MECHANISM DECK

SONY®

MICROFILM

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For the mode selector operation, schematic diagram and parts list, refer to the Supplement-1 Manual.

1. PREPARATION FOR CHECKING, ADJUSTING AND REPLACING THE MECHANISM

For the disassembly procedures of the cabinet and printed wiring boards, please refer to the "DISASSEMBLY" section of the service manual of the respective models.
To re-assemble the mechanical parts which are disassembled in the following sections, perform the disassembly steps in reverse, unless otherwise specified.
The mechanisms are adjusted while set in the $\boxed{\text{USE}}$ mode of operation. (Refer to the "Mode Selector Operation Procedure of the Supplement-1 Manual for how to enter the $\boxed{\text{USE}}$ mode.)

1-1. Cassette Compartment Block Assy

1. Disassembly Procedure (Refer to Fig. 1.)

1) Set the mechanism to $\boxed{\text{USE}}$ mode.
2) Confirm that the Cassette Compartment Block Assy is opened. If it is not opened, open it referring to Fig. a.
3) Remove the claws Ⓐ and Ⓑ of the Damper Assy ① from the chassis.
4) Remove the washer ② from the shaft of the Cassette Compartment near the Drum, next to the loading motor. Remove the shaft of the arm from the slot.
5) Remove the shaft of the arm from the slot Ⓒ of the Cassette Compartment near the Drum, next to the capstan motor. (Refer to Fig. b)
6) Lift up the Cassette Compartment at the Drum side in the direction of the arrow Ⓓ, and remove the arm shaft of the Cassette Compartment from the LS Chassis ④ near the Reel Tables. Remove the Cassette Compartment Assy ③ in the direction of the arrow Ⓔ.

2. Precautions During Re-Assembling

1) After attaching the Tension Spring, confirm that the straight portion at the end of the curved hook of the spring is positioned inside the mechanism. (Refer to Fig. c)
2) Confirm that the claw in the bottom of the shaft near the Reel Table of the Cassette Compartment is hooked to the LS Chassis.
3) Confirm that the claw of the Damper Assy is hooked to the LS Chassis. (Refer to Fig. b)

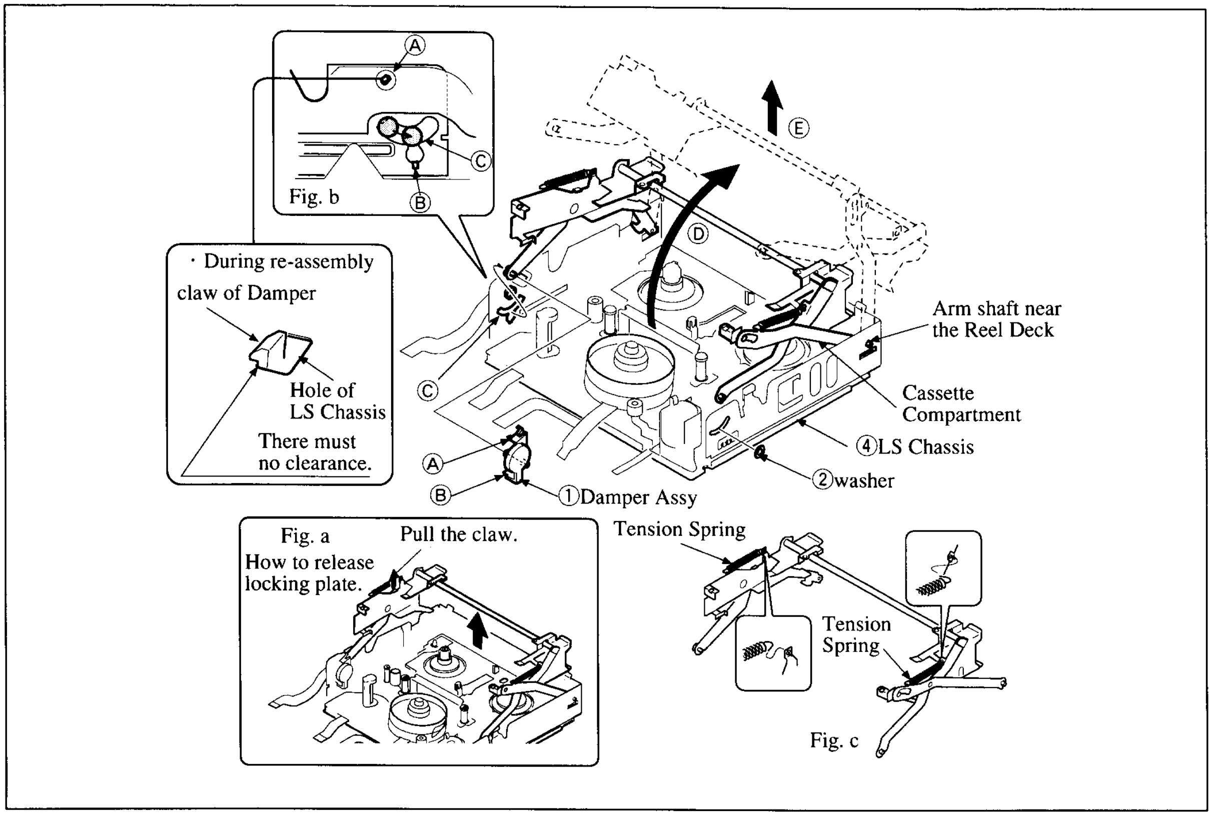

Ⓐ
Ⓒ
Fig. b
Ⓑ
Ⓔ
Ⓓ
· During re-assembly
claw of Damper
Hole of
LS Chassis
There must
no clearance.
Ⓒ
Ⓐ
Ⓑ
①Damper Assy
Arm shaft near
the Reel Deck
Cassette
Compartment
④LS Chassis
②washer
Fig. a
Pull the claw.
How to release
locking plate.
Tension Spring
Tension
Spring
Fig. c

Fig. 1

1-2. How to Operate the Mechanism with the Cassette Compartment Block Assy Removed

1. How to load a cassette tape (Refer to Fig. 2):

1) While referring to section "DISASSEMBLY" of the respective service manual, turn the main power on with the cabinet and camera section removed. (It enables to operate the mechanical deck.)
2) Connect the adjustment remote commander (Ref. No. J-10) and establish the TEST mode.

> Example of establishing the TEST mode: model CCD-TR420E/TR440E.
> Select page: 6, address: 00, set data :01 and press the PAUSE button to release protection.
> Select page: 7, address: 01, set data: 01 and press the PAUSE button.
> After tape loading or other desired operations of mechanism are completed, be sure to perform the following:
> Select page: F, address: 01, set data :00 and press the PAUSE button.
> Select page: 6, address: 00, set data: 00 and press the PAUSE button.

3) Press the push-switch ① knob in the direction of the arrow which sets the machine into loading mode.

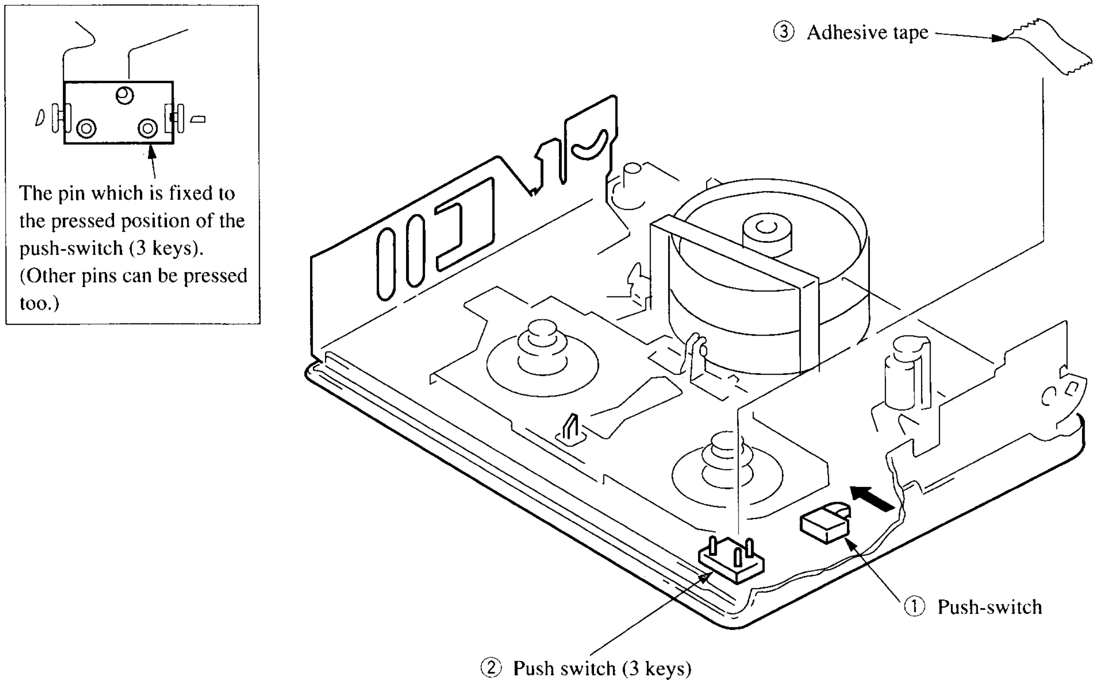
☆ PB, FF/REW and CUE/REV operations are possible.

2. How to establish RECORD mode:

1) Press pin of the push-switch ② (ON state) and keep the ON state by fixing with adhesive tape ③.
2) Turn the main power switch ON (select VTR or CAMERA position of in case of camera).
3) Set the RECORD switch to ON.
   (When the TEST mode is selected, the rotation detection of the S and T reel tables is muted, and the top end sensor is disable which allow to run the tape.)

3. How to eject a cassette tape:

1) Press the EJECT switch to ON.



The pin which is fixed to the pressed position of the push-switch (3 keys). (Other pins can be pressed too.)

Fig. 2

2. PERIODIC CHECK AND MAINTENANCE ITEMS

- Perform the following periodic check and maintenance to ensure that the machine functions continue to operate in peak condition, and to protect the tape and mechanism deck. After completing repair work, perform the following maintenance items regardless of how long the user's machine has been used.

2-1. Rotary Drum Assy Cleaning

Press the cleaning piece (Ref. No. J-2) moistened with cleaning fluid (Ref. No. J-1) lightly on the Rotary Drum Assy. Gently turn the Rotary Drum Assy slowly by hand counter-clockwise to clean the rotary drum.

Caution: Never attempt to turn the head drum motor by turning the main power ON. Also, never turn the drum clockwise by hand. In addition, never move the cleaning piece vertically with respect to the head tips, since this will damage them. Never clean the head drum in any way other than as described above.

2-2. Tape Path Cleaning (Refer to Fig. 3.)

1) Set the mechanism to USE mode. Clean the tape path system (TG-1, TG-2, TG-3, TG-4, pinch roller, capstan shaft) and lower drum using a very thin cotton swab (Ref. No. J-3) moistened with cleaning fluid.

Caution: Take care that the very thin cotton swab (Ref. No. J-3) does not touch the oil or grease of the various link mechanisms.

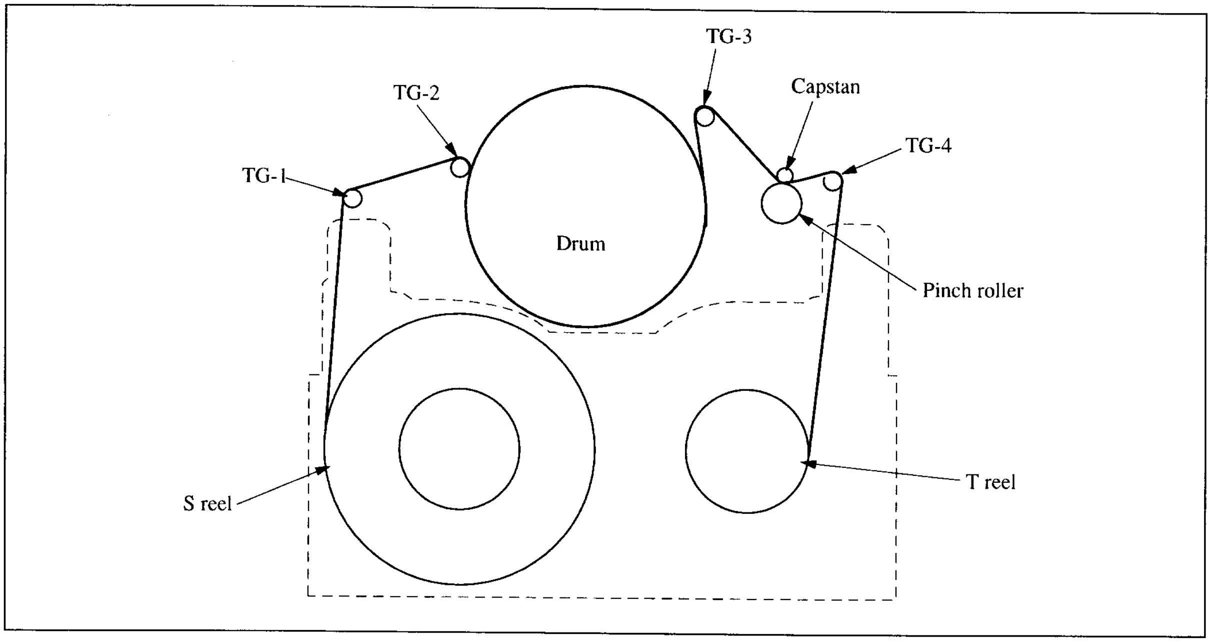


Fig. 3

2-3. Periodic Check Items

	Maintenance and Inspection Points	Operating Hours										Remarks
		500	1000	1500	2000	2500	3000	3500	4000	4500	5000	
	Cleaning of tape running surface	○	○	○	○	○	○	○	○	○	○	Take care not to get oily.
	Cleaning and degaussing of Rotary Drum Assy	○	○	○	○	○	○	○	○	○	○	Take care not to get oily.
Drive System	Timing Belt	—	☆	—	☆	—	☆	—	☆	—	☆	3-965-546-01
	Capstan Shaft	—	◎	—	◎	—	◎	—	◎	—	◎	Take great care not to let any oil contact the tape running surface.
	Change Gear Shaft Relay Pulley Shaft	—	◎	—	◎	—	◎	—	◎	—	◎	
	Loading Motor	—	☆	—	☆	—	☆	—	☆	—	☆	X-3945-401-1
Performance Check	Abnormal Sound	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	
	Tape Hold-back Tension Measurement	—	☆	—	☆	—	☆	—	☆	—	☆	
	Brake System	—	☆	—	☆	—	☆	—	☆	—	☆	
	FWD } Torque RVS } Measurement	—	☆	—	☆	—	☆	—	☆	—	☆	

○Cleaning ◎Lubrication ☆Check

Note: When overhauling the machine, replace the parts while referring to the above table.

Note: Regarding oil

- Be sure to use the specified oil. (If the viscosity and other characteristics are different, various troubles may arise.)
  Oil: Sony part No. 7-661-018-18
  (Mitsubishi diamond oil hydro fluid NT-68)
- For the oil lubricated bearings, use oil free from dust or foreign materials. If the oil contains any dust or foreign material, the bearings will wear out quickly or burn out.
- One drop of oil is the amount of oil which forms at the tip of a stick of 2 mm diameter.

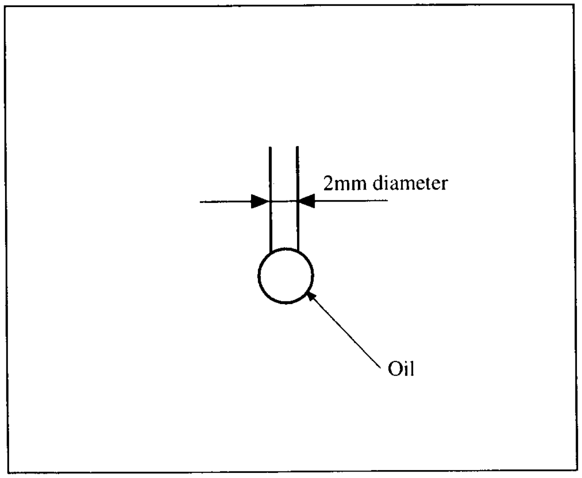


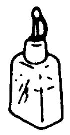
Fig. 4

2-4. Service Tool List

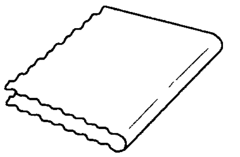
Ref. No.	Name	Parts Code	Tool Stamp	Applications
J-1	Cleaning fluid	Y-2031-001-0	——	
J-2	Cleaning piece	2-034-697-00	——	
J-3	Very thin cotton swab (made by Nippon Cotton Swab Inc. (P752D))		——	
J-4	Head demagnetizer	Commercially available	——	
J-5	Dental mirror Spare mirror	J-6080-029-A J-6080-030-1	SL-5052	Tape path
J-6	Alignment tape (NTSC : WR5-1NP) (PAL : WR5-1CP)	8-967-995-02 8-967-995-07	——	Tape path
J-7	FWD/RVS take-up torque cassette	J-6080-824A	GD-2086	
J-8	Screwdriver for tape path adjustment	J-6082-026-A	——	For tape guide adjustment
J-9	FWD/BACK tension adjustment screwdriver	J-6082-187-A	——	
J-10	Remote commander for adjustment	J-6082-053-B	——	Tape path (Setting PATH mode)
J-11	MD process table	J-6082-166-A	——	
J-12	FLOIL Grease SG-941	7-662-001-39	——	
J-13	FLOIL Grease SG-055G	7-651-000-09	——	

Other equipment
- Oscilloscope
- Analog circuit tester (input impedance 20 kΩ)

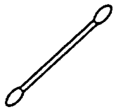
J-1



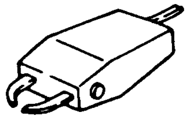
J-2



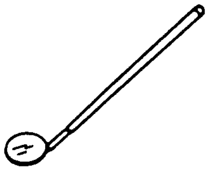
J-3



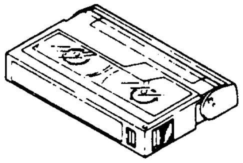
J-4



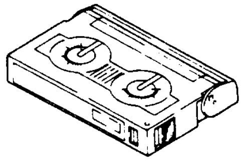
J-5



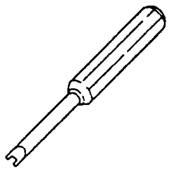
J-6



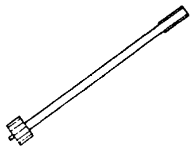
J-7



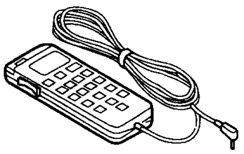
J-8



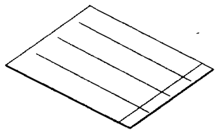
J-9



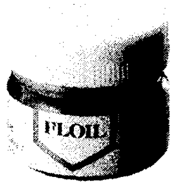
J-10



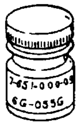
J-11



J-12



J-13



3. CHECKING, ADJUSTING AND REPLACING THE MECHANISM

3-1. HC Roller Block Assy (Refer to Fig. 5)

1. Disassembly Procedure

1) Remove the Torsion Spring ① from the cut-out Ⓐ of the motor holder. Hook it to the claw Ⓑ of the HC Arm.
2) Remove the HC Roller Block Assy in the direction shown by Ⓒ.
3) Remove the stop washer ② and remove the HC Roller Block Assy ③.

2. Precautions During Re-Assembly

1) After attaching the HC Roller Block Assy, confirm that both ends of the torsion spring are hooked to Ⓐ and Ⓓ.
2) Align the block so that the cut-out Ⓔ agrees with the rib Ⓕ.

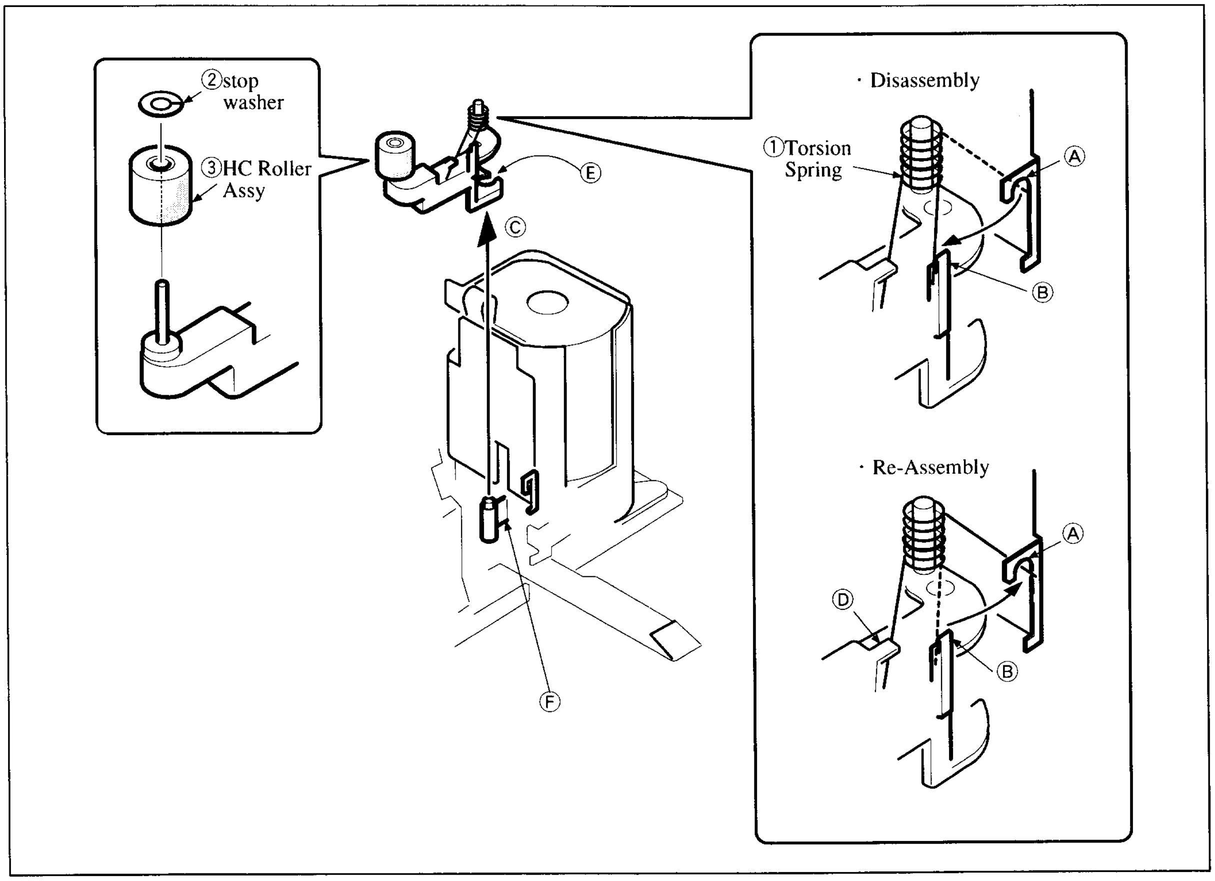

②stop washer
③HC Roller Assy
Ⓔ
Ⓒ
Ⓕ
· Disassembly
①Torsion Spring
Ⓐ
Ⓑ
· Re-Assembly
Ⓐ
Ⓓ
Ⓑ

Fig. 5

3-2. Drum Assy (Refer to Fig. 6)

1. Disassembly Procedure

1) Set the mechanism to USE mode.
2) Remove the three screws (M 1.4) ① and remove the Drum Assy ②.

Caution: Be careful not to touch the outer circumference of the drum. (Hold the portions Ⓐ and Ⓑ of the drum assy.)

2. Precautions During Re-Assembly

1) Be careful not to touch the outer circumference of the drum. (Hold the portions Ⓐ and Ⓑ of the drum assy.)
2) When tightening the three screws (M 1.4), tighten them in the order Ⓒ, then Ⓓ, then Ⓔ.
3) After attaching the Drum Assy, perform the steps in section "4. TAPE PATH ADJUSTMENT".

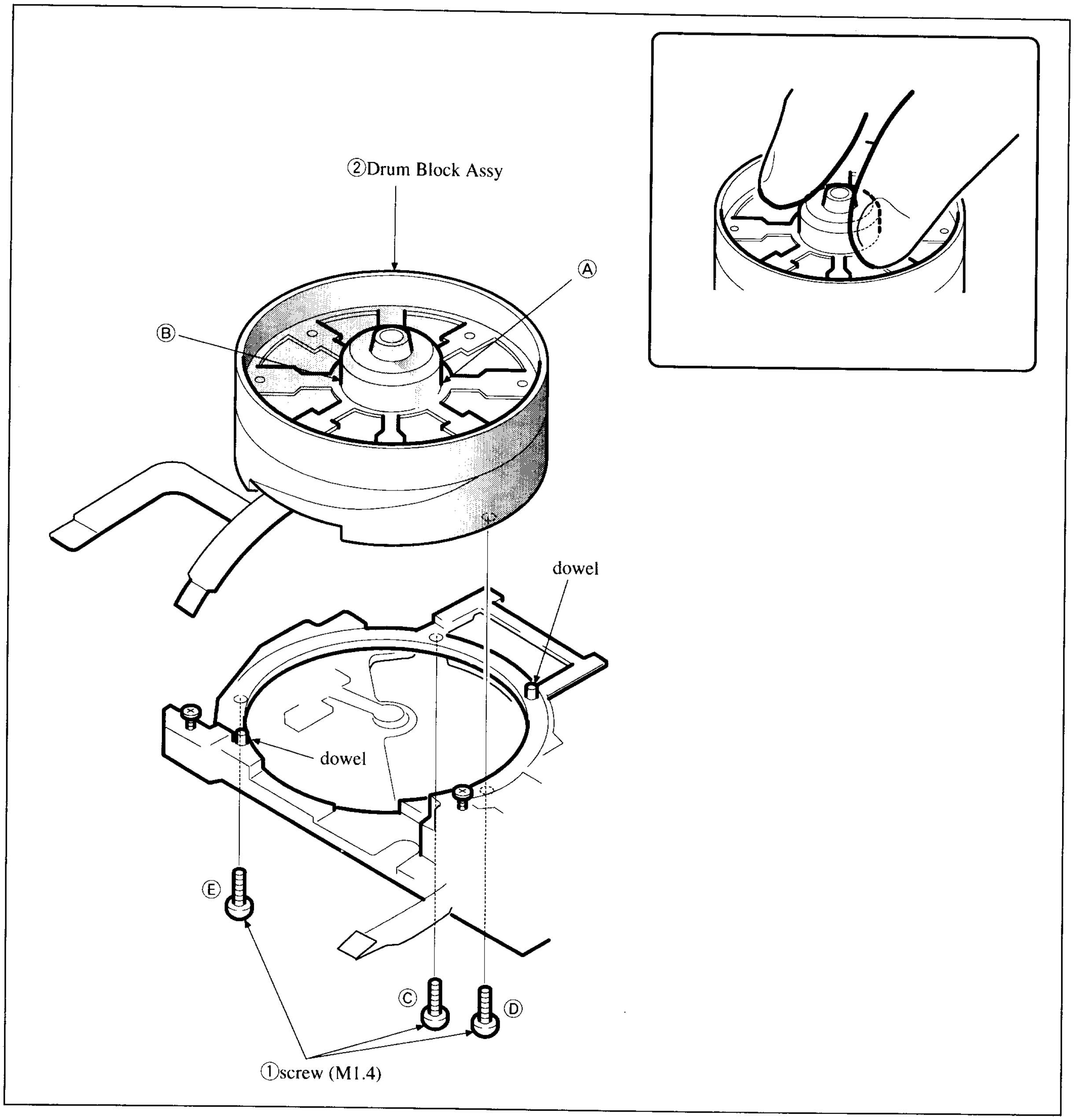


Fig. 6

3-3. Drum Base Block Assy, Shaft Ground (Refer to Fig. 7)

1. Disassembly Procedure

1) Remove the Drum Assy referring to section 3-2.
2) Remove the three screws (M 1.4×2.5) ① and remove the Drum Base Block Assy ②.
3) Remove the screw (M 1.7×1.4) ③ and remove the Shaft Ground ④.

Caution 1: Do not hold the spring portion of the Shaft Ground ④.

Caution 2: The loading motor can be removed while the mechanism is in this state. However, do not move any other mechanical parts (especially gears and cams around the rotary switch) when removing the loading motor. (Refer to 3-11.)

2. Precautions During Re-Assembly

1) Do not touch the spring portion of the Shaft Ground ④.
2) When tightening the three screws (M 1.4×2.5), tighten them in the order of Ⓐ, then Ⓑ, then Ⓒ.
3) After re-assembly is completed, perform the steps in section "4. TAPE PATH ADJUSTMENT".

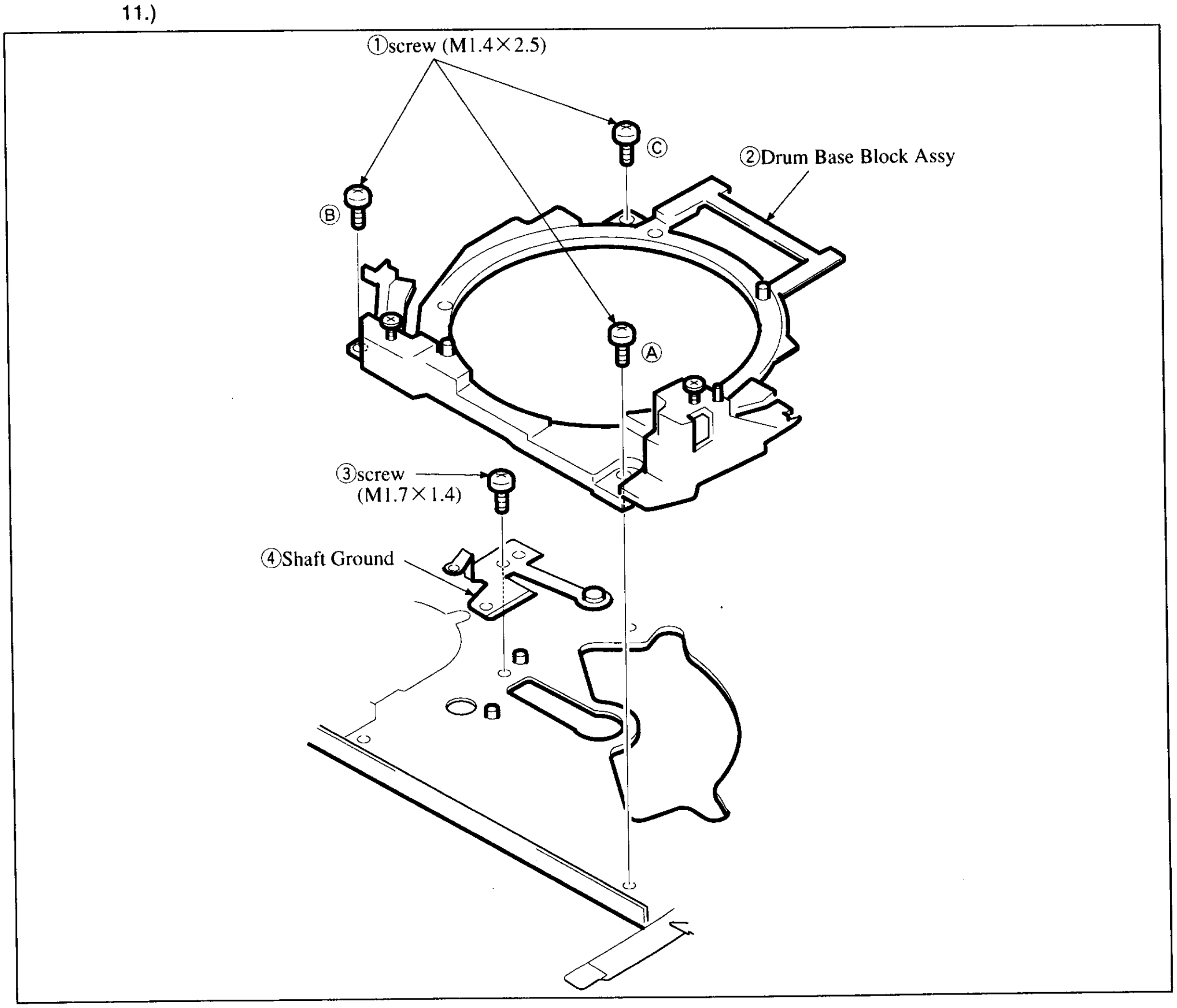


Fig. 7

3-4. Gooseneck Retainer, Gooseneck Gear Assy (Refer to Fig. 8)

1. Disassembly Procedure

1) Remove the Cassette Compartment Block Assy referring to section 1-1.
2) Remove the LED ① from the LED holder of the Gooseneck Retainer ③.
(Turn the flexible board 90° outside and remove it upward.)
3) Remove the three screws (M 1.4×2.5) ② and remove the Gooseneck Retainer ③.
4) Remove the stop washer ④ and remove the Gooseneck Gear Assy ⑤.

2. Precautions During Re-Assembly

1) When attaching the Gooseneck Retainer ③, take care that the Gooseneck Retainer ③ does not collide with the tension regulator band. (The tension regulator band must be located inside.)
2) Hook the T-side claw on the guide.

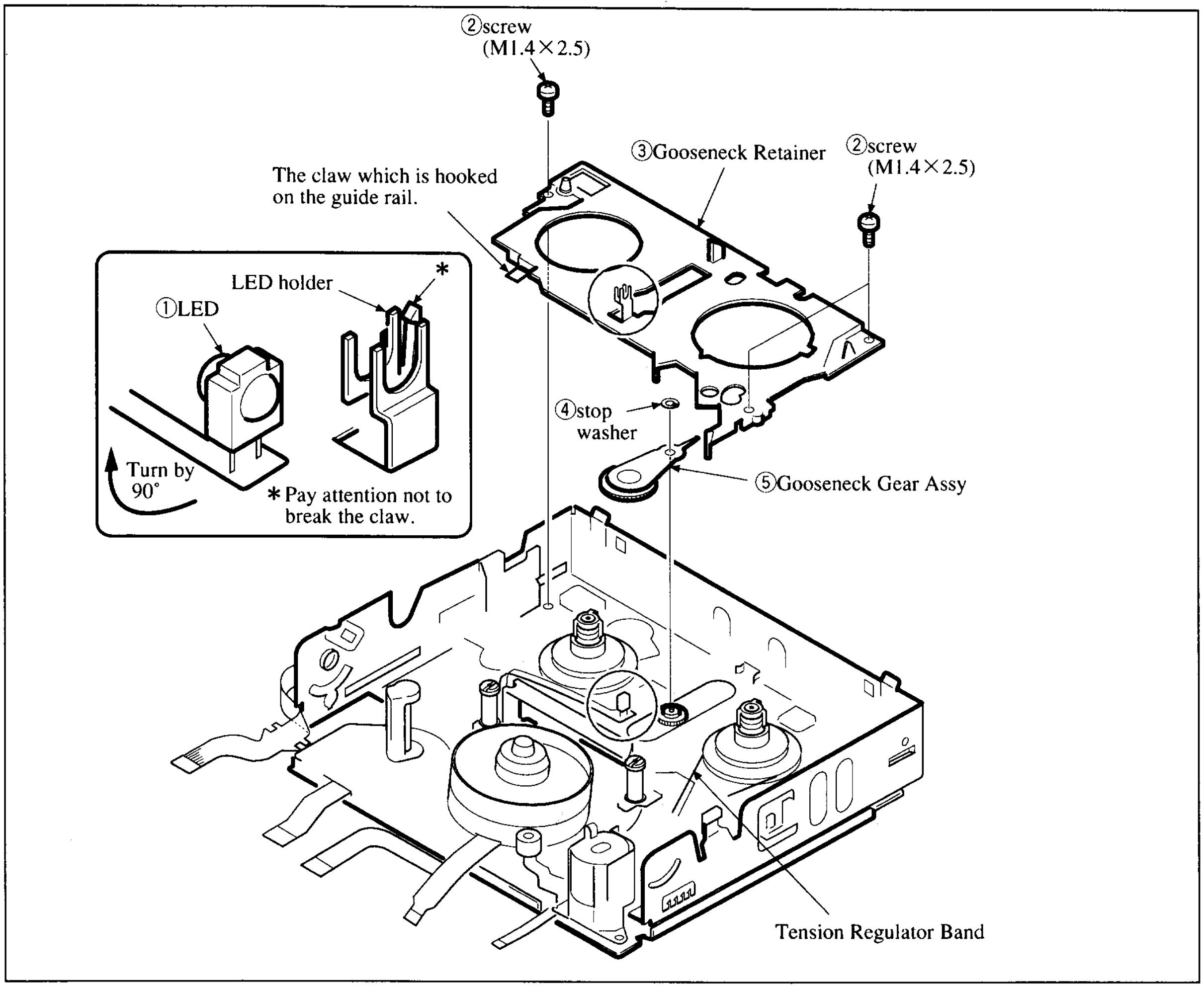

②screw
(M1.4×2.5)
③Gooseneck Retainer
②screw
(M1.4×2.5)
The claw which is hooked on the guide rail.
LED holder
*
①LED
Turn by 90°
* Pay attention not to break the claw.
④stop washer
⑤Gooseneck Gear Assy
Tension Regulator Band

Fig. 8

3-5. LS Chassis Block Assy, Mechanical Chassis Block Assy (Refer to Fig. 9)

1. Disassembly Procedure

1) Remove the Cassette Compartment Block Assy referring to section 1-1.
2) Remove the Gooseneck Retainer and Gooseneck Gear Assy referring to section 3-4.
3) Remove the FP-221 flexible board ① from the flexible board holder.
4) Remove the stop ring E1.5 ②.
5) Remove the two screws (M 1.4×2.5) ③ and remove the LS Chassis Block Assy ④ from the Mechanical Chassis Block ⑤ in the direction of the arrow Ⓐ.

Note: The Tension Regulator Plate (2) can easily fall into the Mechanical Chassis Block Assy. Take care not to drop it.

2. Precautions During Re-Assembly

1) Before attaching the LS Chassis Block Assy, confirm that the respective phase-determining holes have been adjusted for correct phase. Also confirm that the specified locations of the Mechanical Chassis Block Assy and the LS Chassis Block Assy are coated with grease SG-055G (Ref. No. J-13). (Refer to Fig. a)
2) When attaching the LS Chassis Block Assy, insert the LS Cam Plate (on the LS chassis side) into the dowel (on the mechanical chassis side). Also insert the TG1 Cam Axis (on the LS chassis side) into the Tension Regulator Plate (2) (on the mechanical chassis side).
3) When attaching these block assemblies, attach them while pressing the TG-1 Arm Assy in the direction toward the TG-2 Guide. (Refer to Fig. b)
4) Pay attention that the TG-1 Arm is not floated.

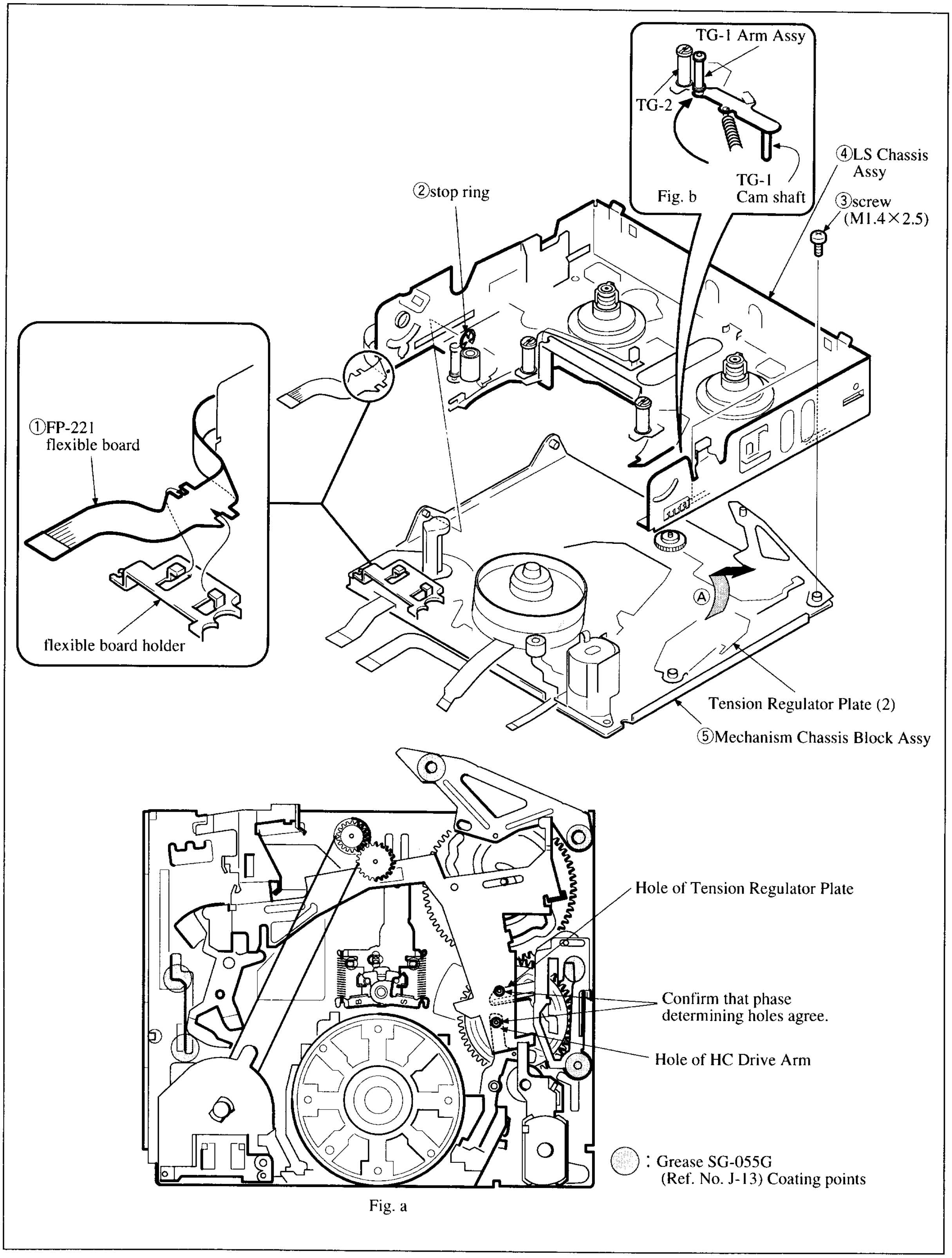

TG-1 Arm Assy
TG-2
TG-1
Cam shaft
Fig. b
④LS Chassis
Assy
③screw
(M1.4×2.5)
②stop ring
①FP-221
flexible board
flexible board holder
Ⓐ
Tension Regulator Plate (2)
⑤Mechanism Chassis Block Assy
Hole of Tension Regulator Plate
Confirm that phase
determining holes agree.
Hole of HC Drive Arm
: Grease SG-055G
(Ref. No. J-13) Coating points
Fig. a

Fig. 9

- **PARTS CONSTITUTING THE LS CHASSIS.**

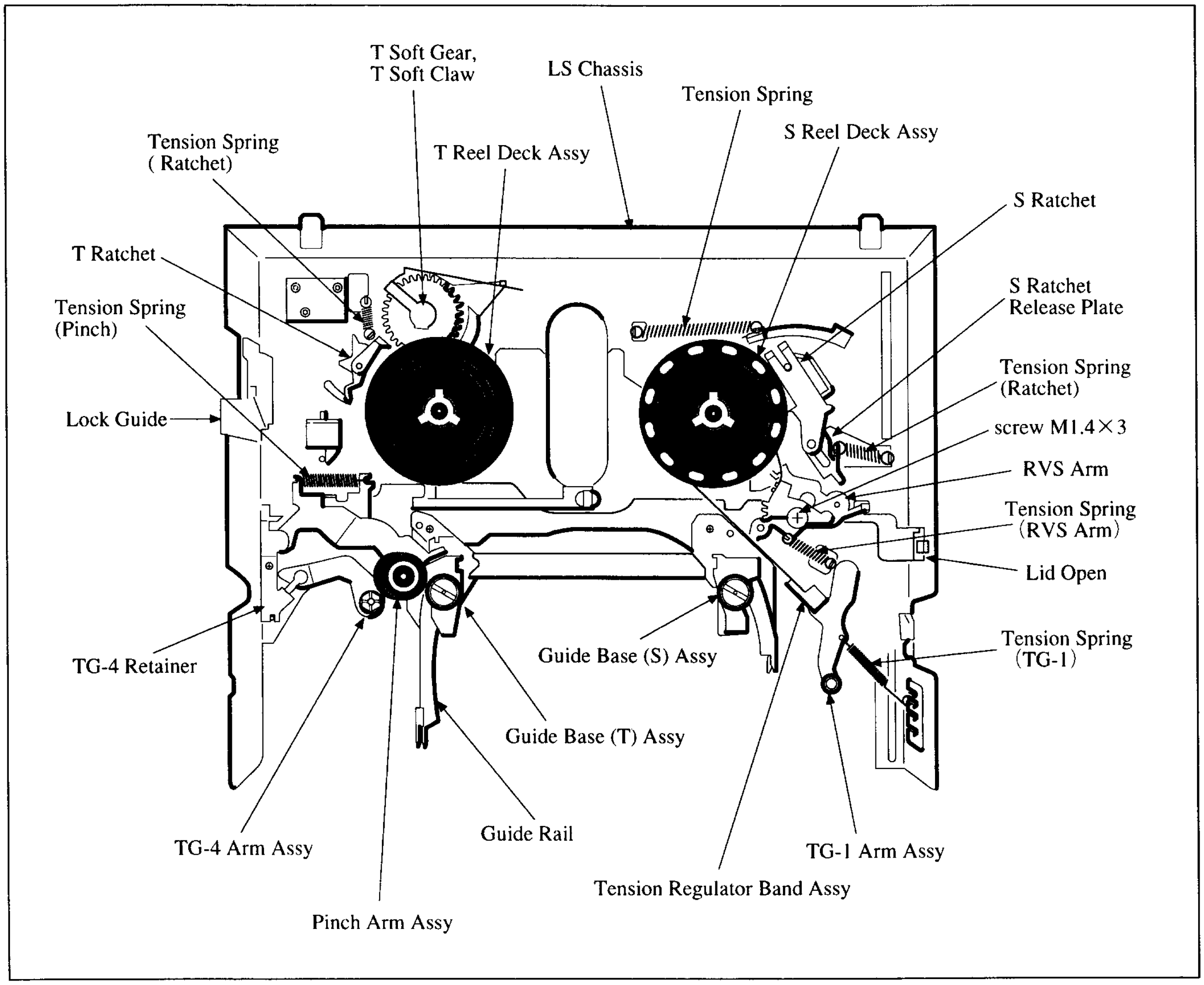

T Soft Gear,
T Soft Claw
LS Chassis
Tension Spring
S Reel Deck Assy
Tension Spring
(Ratchet)
T Reel Deck Assy
S Ratchet
T Ratchet
S Ratchet
Release Plate
Tension Spring
(Pinch)
Tension Spring
(Ratchet)
Lock Guide
screw M1.4×3
RVS Arm
Tension Spring
(RVS Arm)
Lid Open
Tension Spring
(TG-1)
TG-4 Retainer
Guide Base (S) Assy
Guide Base (T) Assy
Guide Rail
TG-4 Arm Assy
TG-1 Arm Assy
Tension Regulator Band Assy
Pinch Arm Assy

Fig. 10

3-6. T Reel Table Assy, T Ratchet, T Soft Gear Block Assy (Refer to Fig. 11)

1. Disassembly Procedure

1) Remove the Cassette Compartment Block Assy referring to section 1-1.
2) Remove the Gooseneck Retainer and Gooseneck Gear Assy referring to section 3-4.
3) Remove the claw of the T Reel Deck Assy ① from the chassis and remove the T Reel Deck Assy from its shaft.
4) Remove the Tension Spring (Ratchet) ② from the LS Chassis and turn the T Ratchet ③ in the direction of the arrow Ⓐ and remove it .
5) Turn the T Soft Gear Block Assy ④ in the direction of the arrow Ⓑ and remove it .

2. Precautions During Re-Assembly

1) Confirm that the protrusions of both the T Soft Gear Block Assy and T Ratchet are securely locked to the LS Chassis.
2) Be careful not to deform the claw.

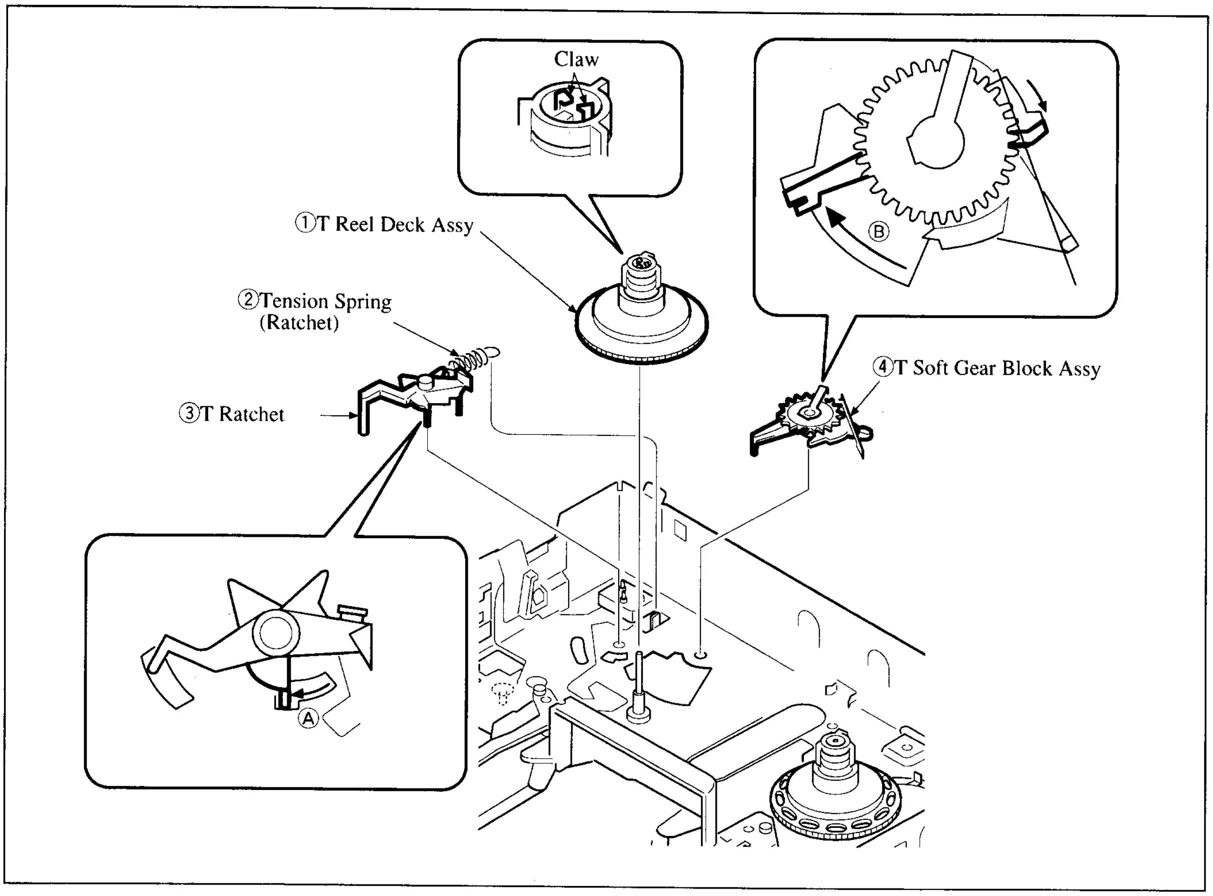


Fig. 11

3-7. Tension Regulator Band Assy, TG1 Arm Assy, S Reel Table Assy, S Ratchet, S Ratchet Release Plate, RVS Arm (Refer to Fig. 12)

1. Disassembly Procedure

1) Remove the Cassette Compartment Block Assy referring to section 1-1.
2) Remove the Gooseneck Retainer and Gooseneck Gear Assy referring to section 3-4.
3) Remove the Tension Spring (TG1) ① from the LS Chassis.
4) Remove the screw (M 1.4×3) ② and remove the Tension Adjustment Block of the Tension Regulator Band Assy ④ form RVS Arm.
5) Release the S Ratchet ⑥ in the direction of the arrow Ⓐ and remove the Tension Regulator Band (while taking care not to bend the band) from the S Reel.
6) Remove the TG1 Arm Assy ③ from the LS Chassis, then remove the claw of the Tension Regulator Band Assy ④. (Refer to Fig. a)
7) Remove the claw of the S Reel Deck Assy ⑤ from the chassis and remove the S Reel Deck Assy from its shaft.
8) Remove the S Ratchet ⑥. (Because it is press-fitted, insert tip of screwdriver into the center of rotation and remove it.
9) Remove the Tension Spring (ratchet) ⑦ from the LS Chassis and remove the S Ratchet Release Plate ⑧.
10) Remove the Tension Spring ⑨ from the LS Chassis and remove the RVS Arm ⑩ by turning it..

2. Precautions During Re-Assembly

1) Confirm that the dowel of the S Ratchet Release Plate is inserted into the groove of the S ratchet and confirm that the center of the ratchet is press-fitted into bottom of the shaft. (It can be used again.)
2) When attaching the Tension Regulator Band Assy, take care not to bend it.
3) Pay attention that oil or grease is not spit on the surface of the Tension Regulated Band. (Pay attention also not to touch it with hand directly.)
4) Confirm that the tension regulator band is correctly inserted into the groove of the S Reel Deck Assy ⑤. (Refer to Fig. b)
5) When securing the Tension Adjustment Block using the screw, press it toward the position which gives the least tension, then tighten the fixing screw.
6) Before attaching the TG1 Arm Assy, coat the LS Chassis TG1 boss with oil (1/2 drop).
7) Do not touch the tape guide of the TG1 Arm Assy with bare hands.
8) Confirm that the claw of the S Reel Deck Assy is not deformed.

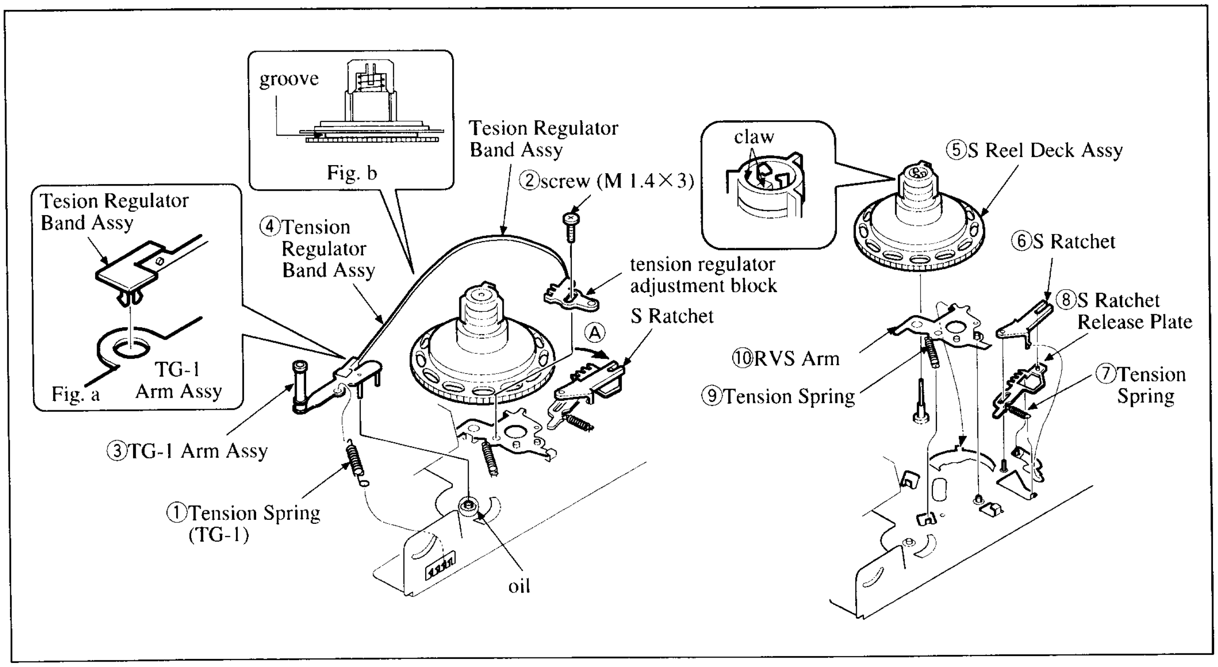

groove
Fig. b
Tesion Regulator Band Assy
②screw (M 1.4×3)
claw
⑤S Reel Deck Assy
Tesion Regulator Band Assy
④Tension Regulator Band Assy
⑥S Ratchet
tension regulator adjustment block
S Ratchet
Ⓐ
⑧S Ratchet Release Plate
⑩RVS Arm
⑨Tension Spring
⑦Tension Spring
TG-1 Arm Assy
Fig. a
③TG-1 Arm Assy
①Tension Spring (TG-1)
oil

Fig. 12

3-8. Pinch Arm Assy, TG4 Arm Block Assy (Refer to Fig. 13)

1. Disassembly Procedure

1) Remove the Cassette Compartment Block Assy referring to section 1-1.
2) Remove the Gooseneck Retainer and Gooseneck Gear Assy referring to section 3-4.
3) Remove the LS Chassis Block Assy referring to section 3-5.
4) Remove the Torsion Spring (pinch) ① from an end of Pinch Arm and hook it on the cut-out Ⓐ of the LS Chassis.
5) Remove the screw (M 1.4×2.5) ② and remove the TG4 Retainer ③.
6) Remove the TG4 Arm Block Assy ④ and remove the Torsion Spring ⑤ while paying attention to the Torsion Spring ⑤.
7) Remove the Pinch Arm Assy ⑥. (Caution: The Pinch Press Roller is easy to drop. Pay attention not to drop it.)
8) Remove the Torsion Spring (pinch) ① from the cut-out of the LS Chassis in the order of Ⓐ then Ⓑ.

2. Precautions During Re-Assembly

1) Before attaching these parts, coat the LS chassis pinch arm boss and TG4 arm boss with grease SG-055G (Ref. No. J-13).
2) Do not touch the tape guide of the TG4 Arm Block Assy and roller of the Pinch Arm Assy with bare hand.
3) After coating the Pinch Press Shaft of the Pinch Arm Assy ③ with grease SG-055G (Ref. No. J-13), attach the Pinch Press Roller.

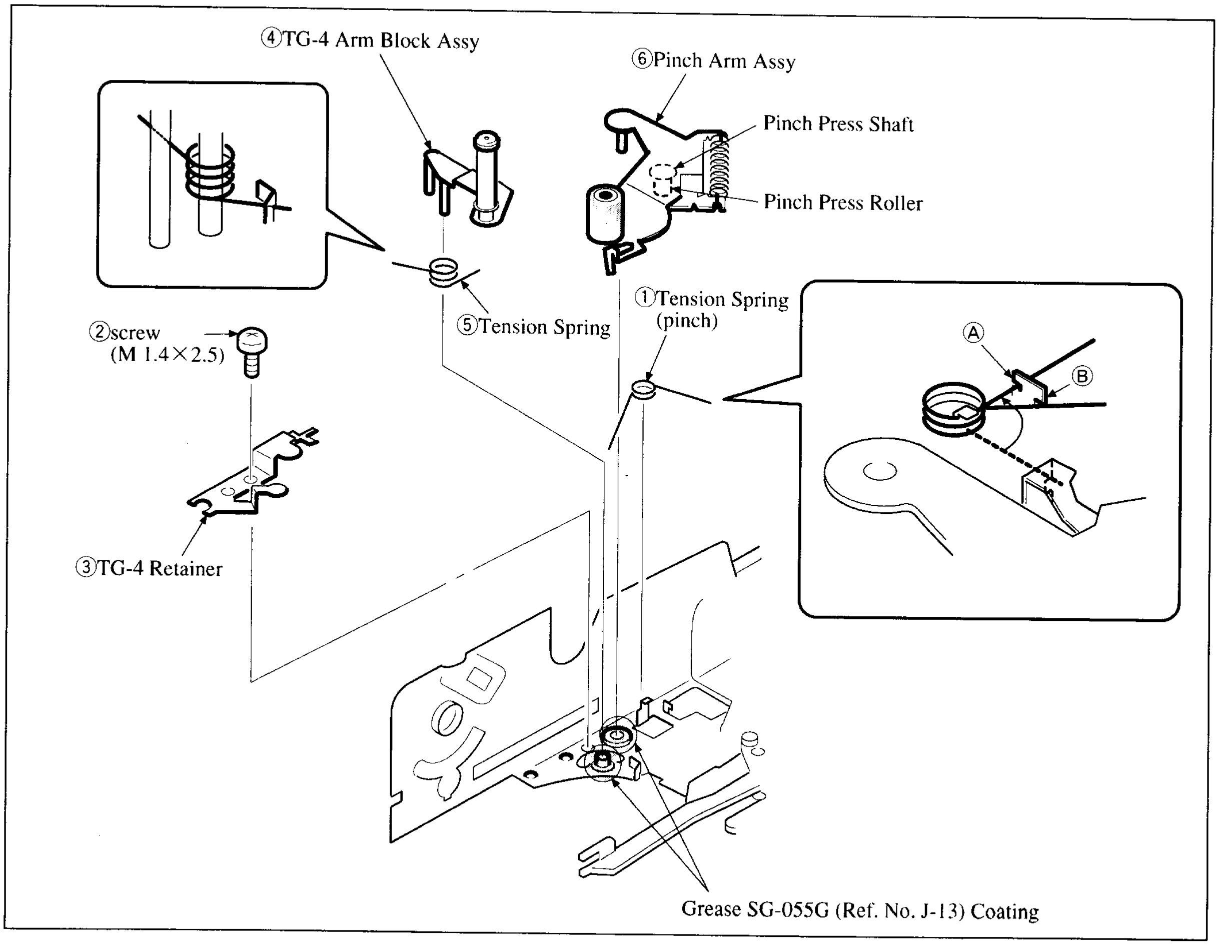

④TG-4 Arm Block Assy
⑥Pinch Arm Assy
Pinch Press Shaft
Pinch Press Roller
⑤Tension Spring
①Tension Spring (pinch)
②screw (M 1.4×2.5)
③TG-4 Retainer
Ⓐ
Ⓑ
Grease SG-055G (Ref. No. J-13) Coating

Fig. 13

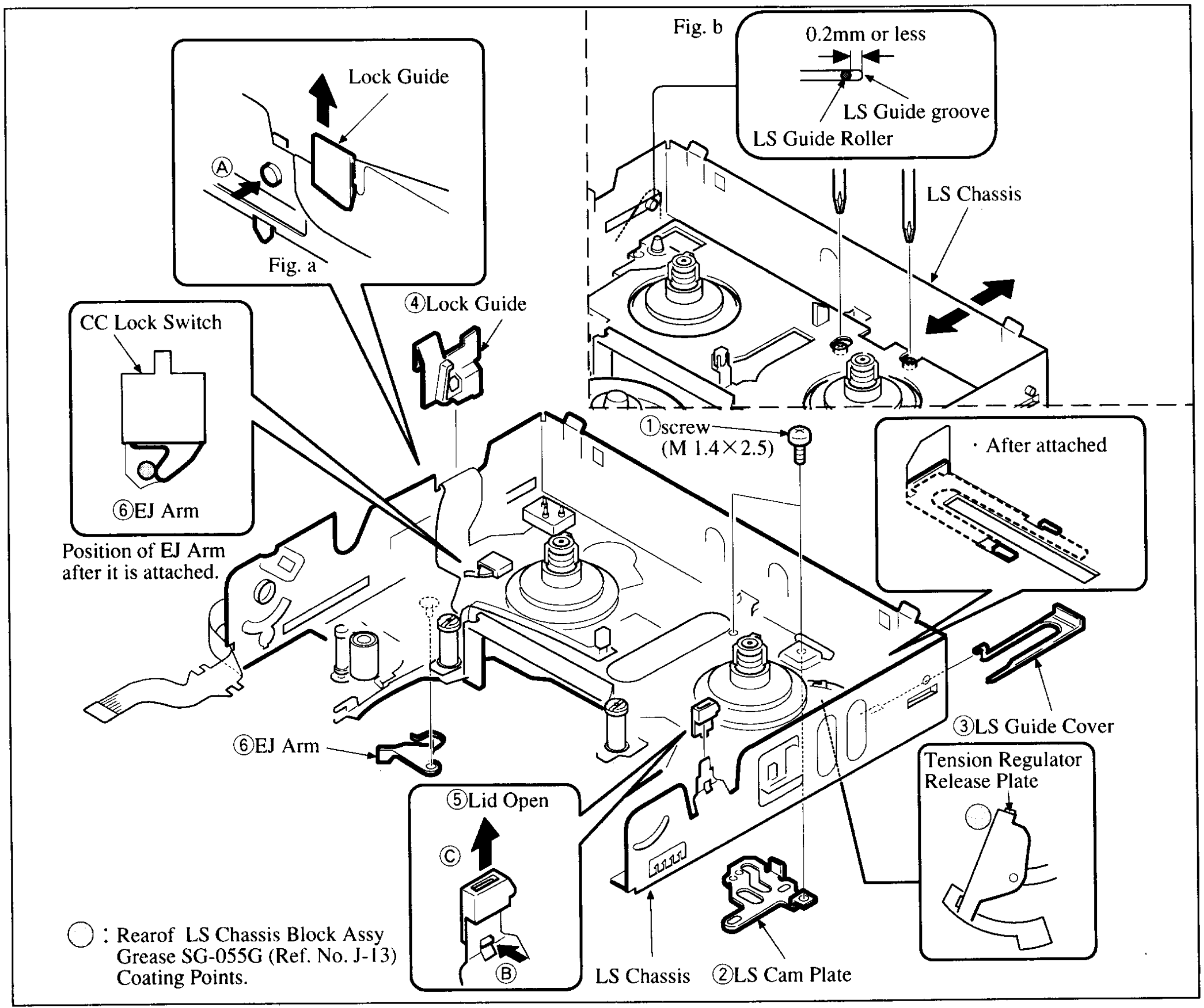
3-9. LS Cam Plate, LS Guide Cover, Lid Opener, EJ Arm, Lock Guide
(Refer to Fig. 14)

1. Disassembly Procedure

1) Remove the Cassette Compartment Block Assy referring to section 1-1.
2) Remove the Gooseneck Retainer and Gooseneck Gear Assy referring to section 3-4.
3) Remove the LS Chassis Block Assy referring to section 3-5.
4) Remove the two screws (M 1.4×2.5) ① and remove the the LS Cam Plate ②.
   In this state, write a mark on the screw ① and on the LS Chassis indicating the position of the LS Cam Plate which helps during re-assembly.
5) Remove the LS Guide Cover ③.
6) Remove the Lock Guide ④ in the upward direction. (Refer to Fig. a)
7) Remove the Lid Open ⑤ in the direction of the arrow Ⓒ while pushing Ⓑ portion .
8) Remove the EJ Arm ⑥ . (The EJ Arm ⑥ is press-fitted. If the EJ Arm ⑥ is not damaged, it is not necessary to replace.)

2. Precautions During Re-Assembly

1) After the captioned parts are attached, confirm that the respective claws and dowels are engaged completely.
2) If the EJ Arm ⑥ is removed, be sure to replace it with the new replacement EJ Arm.
3) If any mark is not written when removing the LS Cam Plate ②, adjust and attack it as shown in Fig. b.


Lock Guide
Ⓐ
Fig. a
④Lock Guide
CC Lock Switch
⑥EJ Arm
Position of EJ Arm after it is attached.
Fig. b
0.2mm or less
LS Guide groove
LS Guide Roller
LS Chassis
①screw (M 1.4×2.5)
· After attached
③LS Guide Cover
Tension Regulator Release Plate
⑥EJ Arm
⑤Lid Open
Ⓒ
Ⓑ
LS Chassis
②LS Cam Plate

○ : Rearof LS Chassis Block Assy
Grease SG-055G (Ref. No. J-13)
Coating Points.

Fig. 14

3-10. Guide Base (S) and (T) Block Assemblies, Guide Rail (Refer to Fig. 15)

1. Disassembly Procedure

1) Remove the Cassette Compartment Block Assy referring to section 1-1.
2) Remove the Gooseneck Retainer and Gooseneck Gear Assy referring to section 3-4.
3) Remove the LS Chassis Block Assy referring to section 3-5.
4) While pushing the GB Stoppers (S) and (T) in the direction of arrow Ⓐ, press the guide arm in the direction of the arrow Ⓑ, and turn the Guide Base (S) and (T) Block Assemblies : ① and ② in the direction of the arrow Ⓒ respectively, and remove them.
5) Remove the two screws (M 1.4×2.5) ③ and remove the the Guide Rail Assy ④.
6) Remove the Stopper (S) and (T) : ⑤ and ⑥, then remove the GB Stopper S and T: ⑦ and ⑧.

2. Precautions During Re-Assembly

1) Pay attention not to deform the Guide Rail.
2) Do not touch the tape guide of the Guide Base (S) and (T) Block Assemblies with bare hand.
3) Pay attention not to deform the Stoppers (S) and (T).
4) When attaching the Guide Base (S) and (T) Blocks to the Guide Rail, move back the Guide Bases until the GB Stoppers (S) and (T) are locked. ("Click" sounds.)
5) After the captioned parts are attached, perform section "4. TAPE PATH ADJUSTMENT".

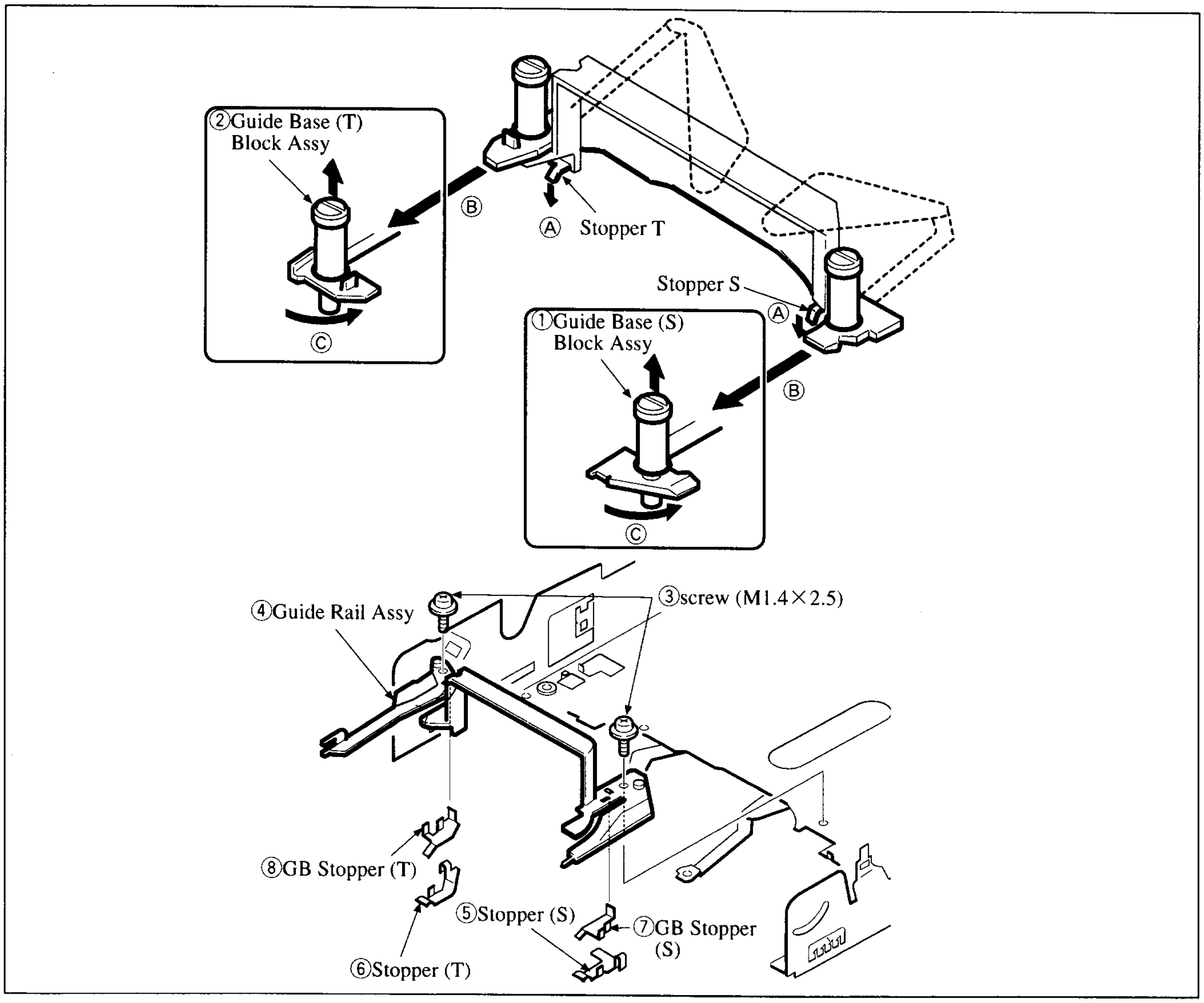

②Guide Base (T)
Block Assy
Ⓑ
Ⓒ
Ⓐ Stopper T
Stopper S
Ⓐ
①Guide Base (S)
Block Assy
Ⓑ
Ⓒ
④Guide Rail Assy
③screw (M1.4×2.5)
⑧GB Stopper (T)
⑤Stopper (S)
⑦GB Stopper (S)
⑥Stopper (T)

Fig. 15

- **PARTS CONSTITUTING THE MECHANISM CHASSIS**

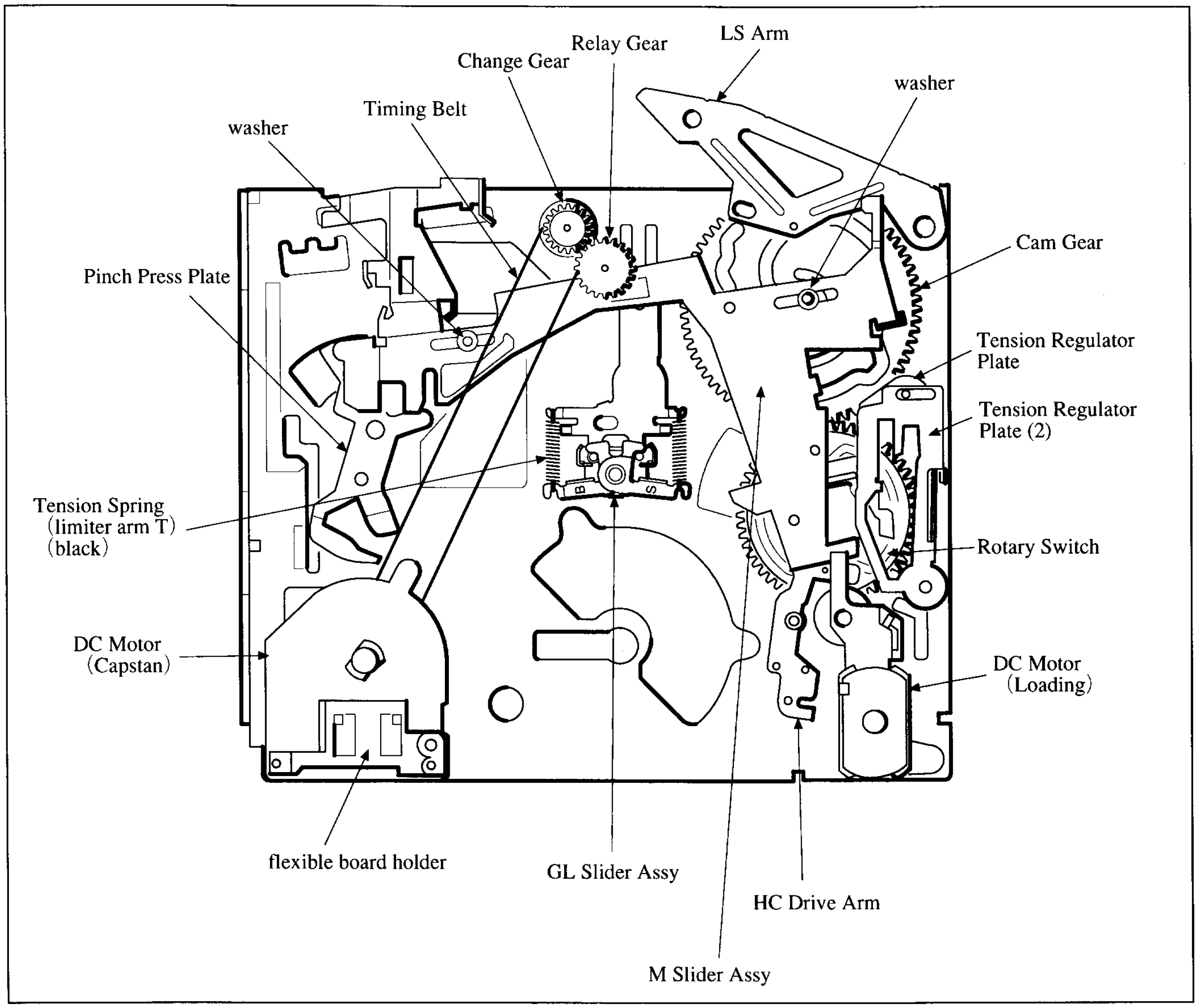

Relay Gear
LS Arm
Change Gear
washer
Timing Belt
washer
Cam Gear
Pinch Press Plate
Tension Regulator Plate
Tension Regulator Plate (2)
Tension Spring (limiter arm T) (black)
Rotary Switch
DC Motor (Capstan)
DC Motor (Loading)
flexible board holder
GL Slider Assy
HC Drive Arm
M Slider Assy

Fig.16

3-11. DC Motor Assy (Loading)
(Refer to Fig. 17)

1. Disassembly Procedure

1) Remove the Cassette Compartment Block Assy referring to section 1-1.
2) Remove the HC Roller Block Assy referring to section 3-1.
3) Remove the Drum Assy referring to section 3-2.
4) Remove the Drum Base Block Assy referring to section 3-3.
5) Remove the Gooseneck Retainer and Gooseneck Gear Assy referring to section 3-4.
6) Remove the LS Chassis Block Assy referring to section 3-5.
7) Remove soldering from the Ⓐ portion.
8) Remove the screw (M 1.4×2.5) ① and remove the Motor Holder Block Assy ② from the mechanism chassis along with the claw beneath the Motor Holder Block Assy as shown by the arrow Ⓑ.
9) Remove the Motor Shield ③ in the direction of the arrow Ⓒ (by opening the two ★ star marked points).
10) Release the claw on top of the Motor Holder ⑤ and remove the DC Motor Assy ④ in the direction of the arrow Ⓓ.
11) Remove the Motor Holder Sleeve ⑥, Gear A⑦ and Worm Shaft ⑧ in this order.

2. Precautions During Re-Assembly

1) Before attaching the Gear A ⑥, coat the Retainer Shaft Ⓔ with grease SG-055G (Ref. No. J-13).
2) After assembling the Motor Holder Block Assy, coat the six locations shown by Fig. a with grease SG-055G (Ref. No. J-13).
3) The HC Drive Arm is easy to drop. Confirm that it is attacked referring to Fig. 19.

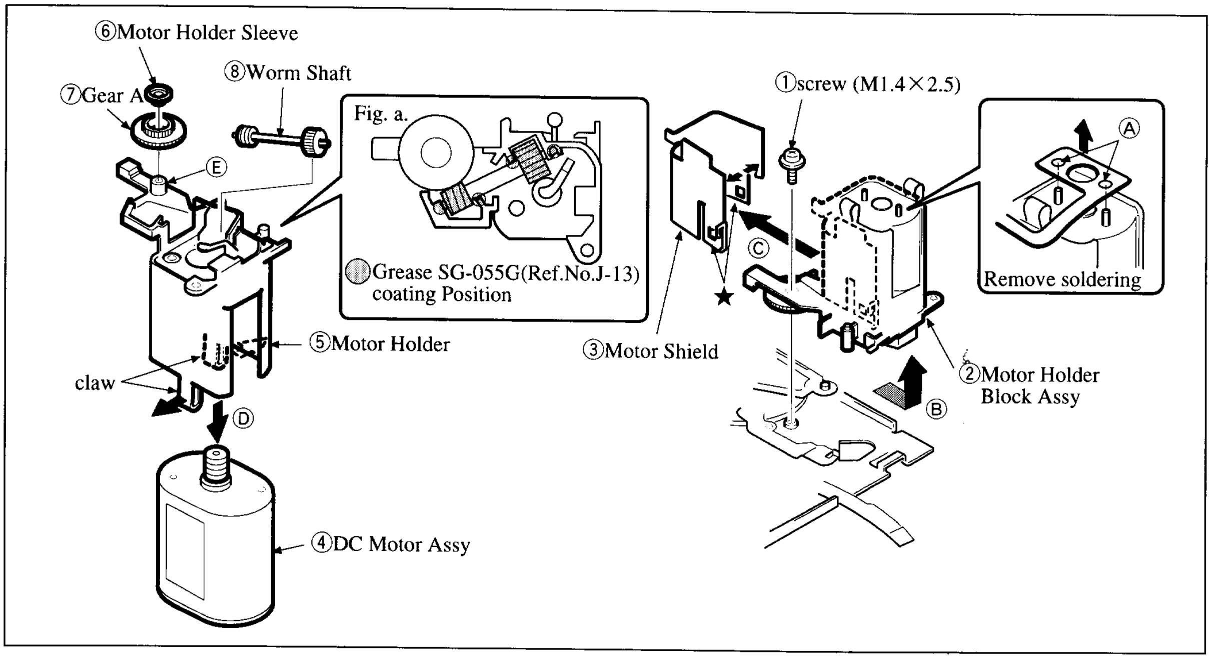

⑥Motor Holder Sleeve
⑧Worm Shaft
⑦Gear A
Ⓔ
Fig. a.
●Grease SG-055G(Ref.No.J-13) coating Position
⑤Motor Holder
claw
Ⓓ
④DC Motor Assy
①screw (M1.4×2.5)
Ⓒ
★
③Motor Shield
Ⓐ
Remove soldering
②Motor Holder Block Assy
Ⓑ

Fig. 17

3-12. Tension Regulator Plate 2, Relay Gear, M Slider Assy (Refer to Fig. 18)

1. Disassembly Procedure

1) Remove the Cassette Compartment Block Assy referring to section 1-1.
2) Remove the HC Roller Block Assy referring to section 3-1.
3) Remove the Drum Assy referring to section 3-2.
4) Remove the Drum Base Block Assy referring to section 3-3.
5) Remove the Gooseneck Retainer and Gooseneck Gear Assy referring to section 3-4.
6) Remove the LS Chassis Block Assy referring to section 3-5.
7) Remove the DC motor referring to section 3-11.
8) Remove the Tension Regulator Plate 2 ①.
9) Remove the Relay Gear ②.
10) Remove the two washers ③. Remove the M Slider Assy ④. At the point, confirm that the LS Roller ⑤ is not dropped.

2. Precautions During Re-Assembly

1) Before attaching the M Slider Assy ④, coat the LS Roller Shaft Ⓐ on the back of the M Slider Assy, the Pinch Press Plate Shaft Ⓑ and the mechanism chassis M Slider Axis Ⓒ with grease SG-055G (Ref. No. J-13). (Refer to Fig. b)
2) While confirming the phase-determining holes, attach the M Slider Assy ④ while paying attention to the claw.
3) Attach the Tension Regulator Plate 2 ① inside the Tension Regulator Plate. (Refer to the asterisk ＊Marked portion of Fig. a)
4) Before attaching the Relay Gear ②, coat the mechanism chassis Relay Gear Axis Ⓓ with grease SG-055G (Ref. No. J-13).

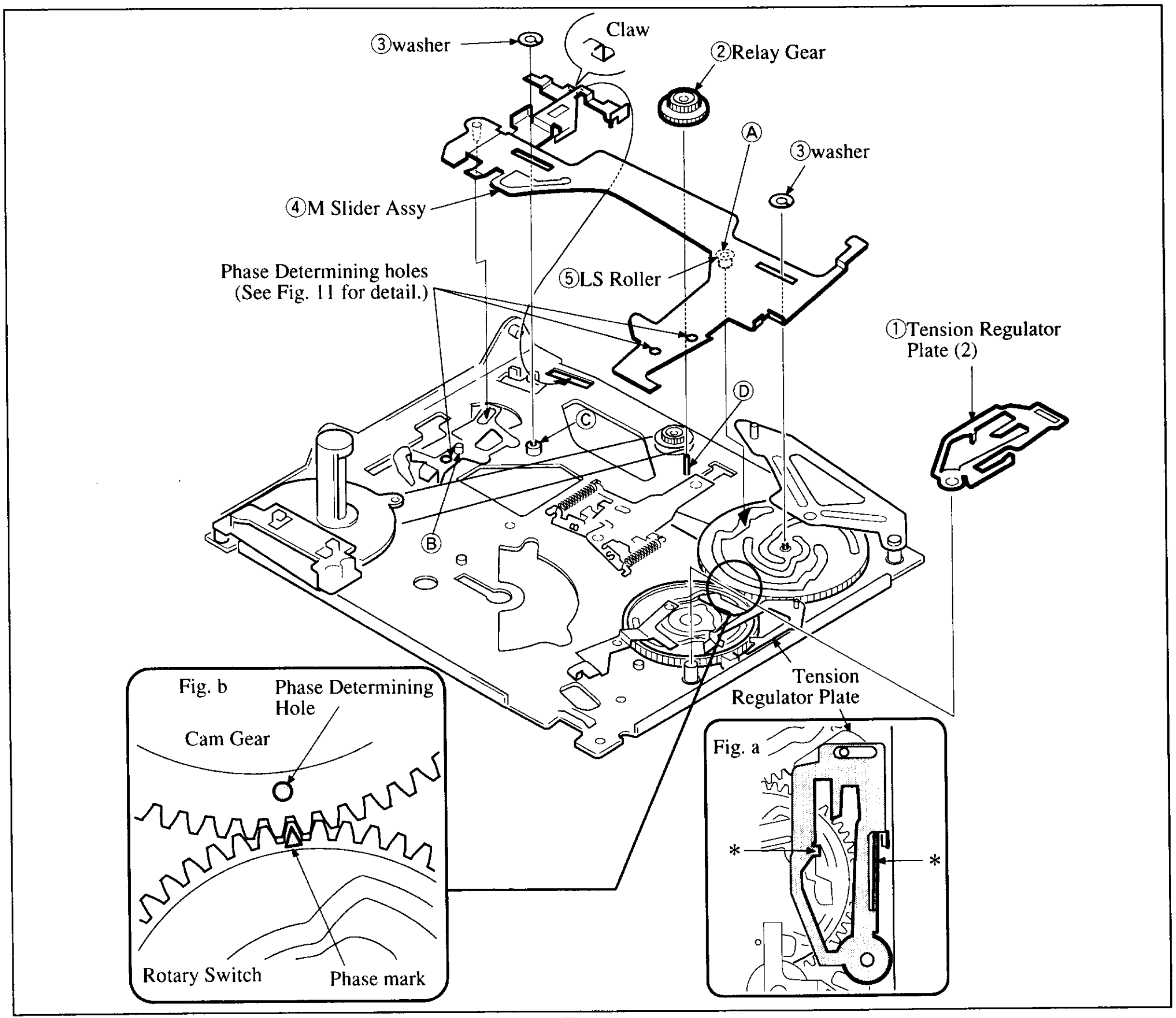

③washer
Claw
②Relay Gear
Ⓐ
③washer
④M Slider Assy
Phase Determining holes
(See Fig. 11 for detail.)
⑤LS Roller
①Tension Regulator
Plate (2)
Ⓓ
Ⓒ
Ⓑ
Tension
Regulator Plate
Fig. a
＊
＊
Fig. b
Phase Determining
Hole
Cam Gear
Rotary Switch
Phase mark

Fig. 18

3-13. LS Arm, HC Drive Arm, Pinch Press Plate, Tension Regulator Plate (Refer to Fig. 19)

1. Disassembly Procedure

1) Remove the Cassette Compartment Block Assy referring to section 1-1.
2) Remove the HC Roller Block Assy referring to section 3-1.
3) Remove the Drum Assy referring to section 3-2.
4) Remove the Drum Base Block Assy referring to section 3-3.
5) Remove the Gooseneck Retainer and Gooseneck Gear Assy referring to section 3-4.
6) Remove the LS Chassis Block Assy referring to section 3-5.
7) Remove the DC Motor Assy referring to section 3-11.
8) Remove the Tension Regulator Plate 2, Relay Gear and M Slider Assy referring to section 3-12.
9) Remove the LS Arm ①. At this point, confirm that the LS Roller ② is not dropped.
10) Remove the HC Drive Arm ③, Pinch Press Plate ④ and Tension Regulator Plate ⑤.

2. Precautions During Re-Assembly

1) Before attaching the captioned parts, confirm that phases of the Cam Gear and the Rotary Switch agree. (See Fig. a.)
2) Insert the dowel of the Tension Regulator Plate ⑤ into the groove outside the rotary switch.
3) Before attaching the Pinch Press Plate ④, check for grease on the mechanism chassis Pinch Press Plate Shaft Ⓐ. If grease cannot be found, coat it with grease SG-055G (Ref. No. J-13). After attaching the Pinch Press Plate ④, align its phase hole until it agrees with the phase-determining hole on the mechanism chassis.
4) Insert the dowel of the HC Drive Arm ③ into the groove inside the rotary switch.
5) Before attaching the LS Arm ①, coat the LS roller shaft of the LS Arm ① with grease SG-055G (Ref. No. J-13).

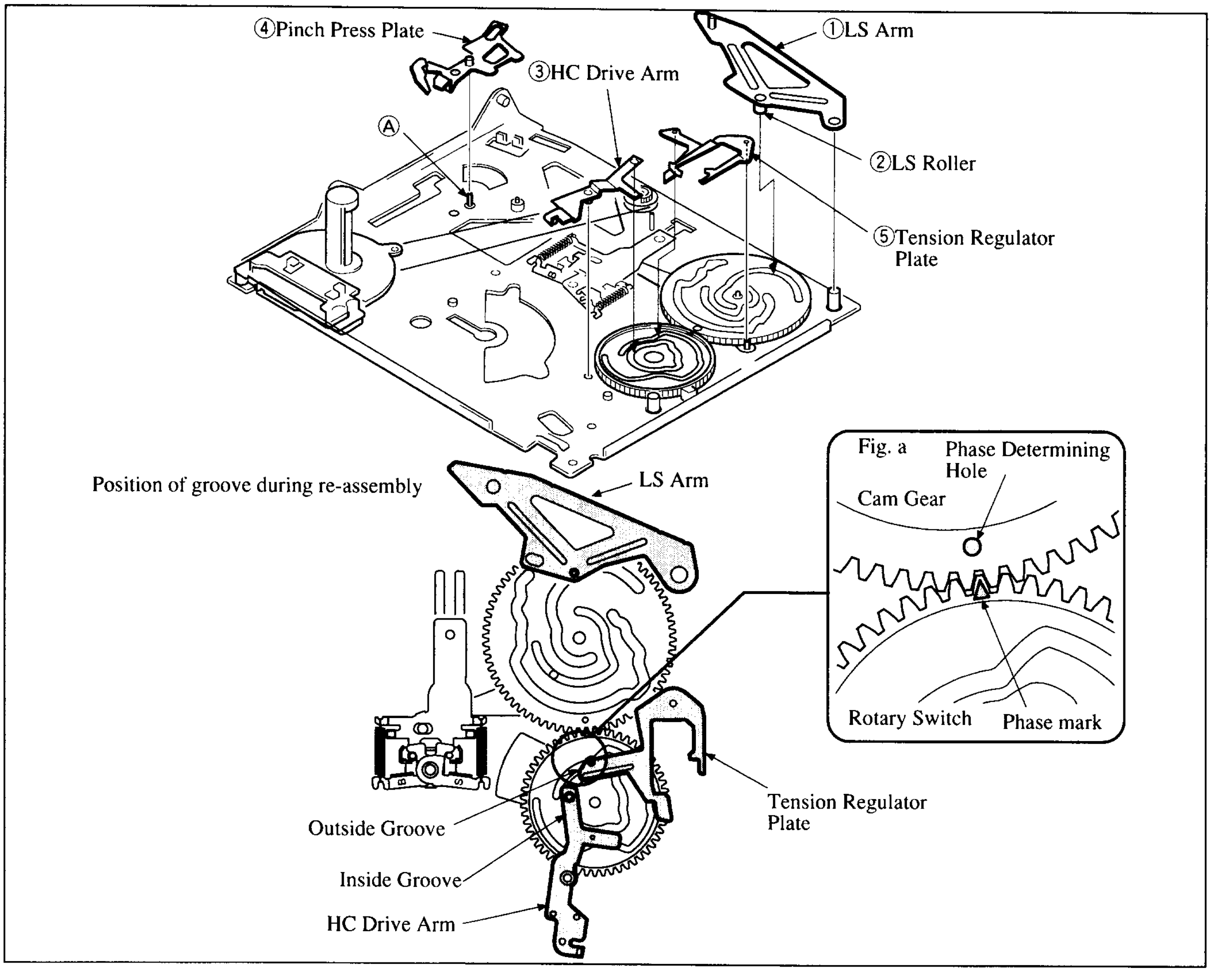

④Pinch Press Plate
③HC Drive Arm
①LS Arm
Ⓐ
②LS Roller
⑤Tension Regulator Plate
Position of groove during re-assembly
LS Arm
Fig. a
Phase Determining Hole
Cam Gear
Rotary Switch
Phase mark
Tension Regulator Plate
Outside Groove
Inside Groove
HC Drive Arm

Fig. 19

3-14. Cam Gear (Refer to Fig. 20)

1. Disassembly Procedure

1) Remove the Cassette Compartment Block Assy referring to section 1-1.
2) Remove the HC Roller Block Assy referring to section 3-1.
3) Remove the Drum Assy referring to section 3-2.
4) Remove the Drum Base Block Assy referring to section 3-3.
5) Remove the Gooseneck Retainer and Gooseneck Gear Assy referring to section 3-4.
6) Remove the LS Chassis Block Assy referring to section 3-5.
7) Remove the DC Motor Assy referring to section 3-11.
8) Remove the Tension Regulator Plate 2, Relay Gear and M Slider Assy referring to section 3-12.
9) Remove the LS Arm and Tension Regulator Plate referring to section 3-13.
10) Remove the Cam Gear ①.

2. Precautions During Re-Assembly

1) Before attaching the Cam Gear ①, align the phase mark on the rotary switch until it agrees with the phase-determining hole Ⓐ on the mechanism chassis, and align the GL Arm's phase mark Ⓑ until it agrees with the phase-determining hole Ⓐ on the mechanism chassis. Coat the mechanism's chassis Gear Axis Ⓐ with grease SG-055G (Ref. No. J-13).
2) Attach the Cam Gear ① so that its phase hole agrees with the phase mark on the rotary switch. (Refer to Fig. a)
3) After the Cam Gear ① is attached, coat the GL Arm Axis Block of the cam gear with grease SG-055G (Ref. No. J-13).

Reference : The phase marks of the Cam Gear and Rotary Switch can also be checked from the rear side of mechanism chassis. It means that the phase can be confirmed after mechanism deck is fully re-assembled.

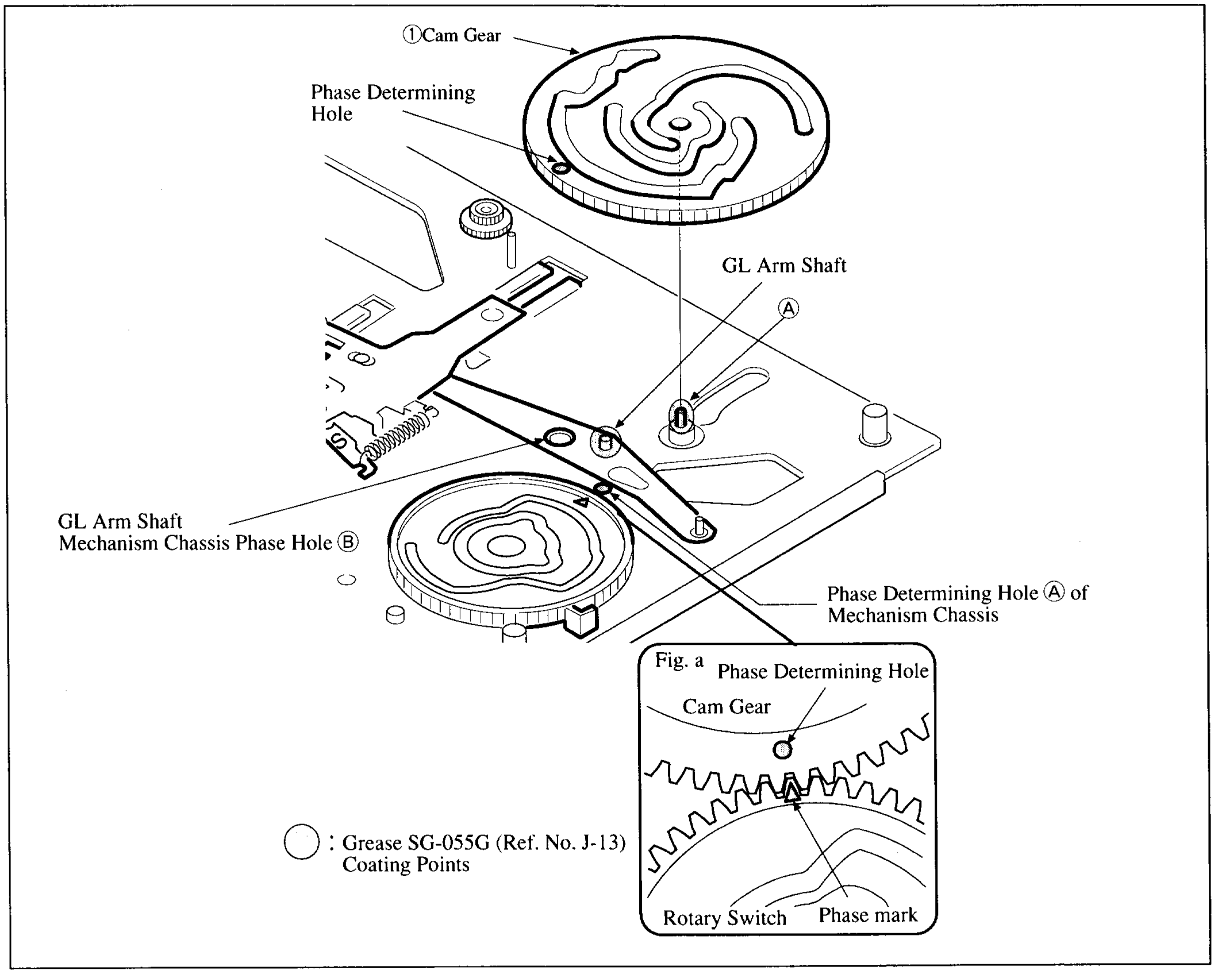

①Cam Gear
Phase Determining Hole
GL Arm Shaft
Ⓐ
GL Arm Shaft
Mechanism Chassis Phase Hole Ⓑ
Phase Determining Hole Ⓐ of Mechanism Chassis
Fig. a
Phase Determining Hole
Cam Gear
Rotary Switch
Phase mark
○ : Grease SG-055G (Ref. No. J-13) Coating Points

Fig. 20

3-15. GL Slider Assy, GL Arm
(Refer to Fig. 21)

1. Disassembly Procedure

1) Remove the Cassette Compartment Block Assy referring to section 1-1.
2) Remove the HC Roller Block Assy referring to section 3-1.
3) Remove the Drum Assy referring to section 3-2.
4) Remove the Drum Base Block Assy referring to section 3-3.
5) Remove the Gooseneck Retainer and Gooseneck Gear Assy referring to section 3-4.
6) Remove the LS Chassis Block Assy referring to section 3-5.
7) Remove the DC Motor Assy referring to section 3-11.
8) Remove the Tension Regulator Plate 2, Relay Gear and M Slider Assy referring to section 3-12.
9) Remove the LS Arm and Tension Regulator Plate referring to section 3-13.
10) Remove the Cam Gear referring to section 3-14.
11) Remove the GL Slider Assy ① by sliding it in the direction of the arrow Ⓐ.
12) Remove the GL Arm ②.

2. Precautions During Re-Assembly

1) The Tension Spring T③ is colored black and the Tension Spring S④ is colored silver.
2) Coat the position shown in Fig. a of the GL Slider Assy ① with grease SG-055G (Ref. No. J-13).
3) Coat the four points Ⓑ where GL slider is attached on the mechanism chassis with grease SG-055G (Ref. No. J-13).
4) After attaching the GL Arm ② and the GL Slider Assy, align the GL arm phase hole until it agrees with the phase-determining hole on the mechanism chassis.

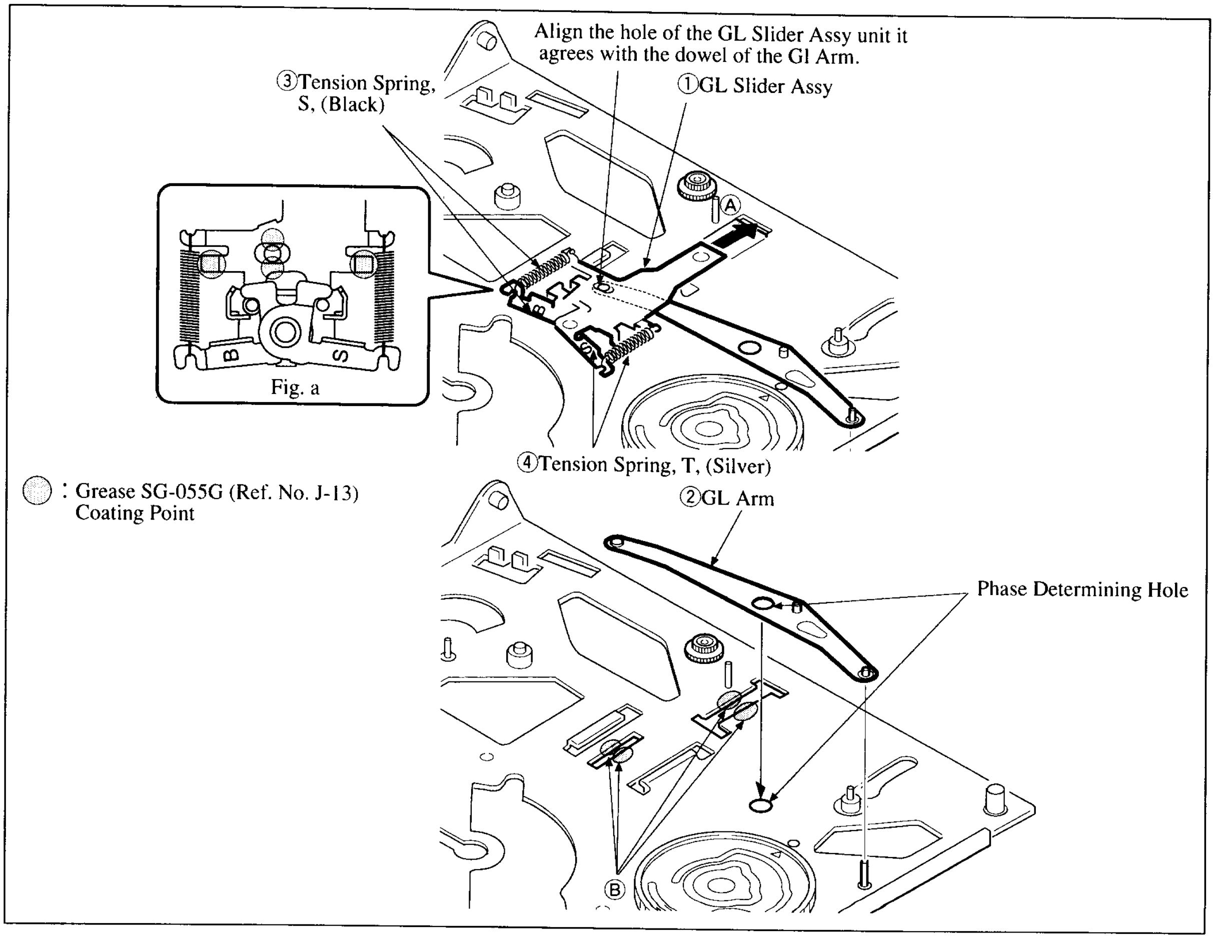

Align the hole of the GL Slider Assy unit it agrees with the dowel of the Gl Arm.
③Tension Spring, S, (Black)
①GL Slider Assy
Ⓐ
Fig. a
B
S
④Tension Spring, T, (Silver)
②GL Arm
Phase Determining Hole
Ⓑ
○ : Grease SG-055G (Ref. No. J-13) Coating Point

Fig. 21

3-16. Rotary Switch (Refer to Fig. 22)

1. Disassembly Procedure

1) Remove the Cassette Compartment Block Assy referring to section 1-1.
2) Remove the HC Roller Block Assy referring to section 3-1.
3) Remove the Drum Assy referring to section 3-2.
4) Remove the Drum Base Block Assy referring to section 3-3.
5) Remove the Gooseneck Retainer and Gooseneck Gear Assy referring to section 3-4.
6) Remove the LS Chassis Block Assy referring to section 3-5.
7) Remove the DC Motor Assy referring to section 3-11.
8) Remove the Tension Regulator Plate 2, Relay Gear and M Slider Assy referring to section 3-12.
9) Remove the LS Arm, Tension Regulator Plate, HC Drive Arm and Pinch Press Plate referring to section 3-13.
10) Remove the Cam Gear referring to section 3-14.
11) Remove soldering the portion Ⓐ on the rear of the Rotary Switch. (Pay attention at this moment that the GL Slider and GL Arm do not drop.)
12) While lifting up the portion Ⓑ about 1 mm (pay attention not to break it), hold the portion Ⓒ and turn it in the direction of the arrow Ⓓ to remove the Rotary Switch.

2. Precautions During Re-Assembly

1) Before attaching the Rotary Switch by soldering on the FP-220 board, insert the portion Ⓑ dowel into the hole on the mechanism chassis. Confirm that the three claws are engaged with the mechanism chassis.

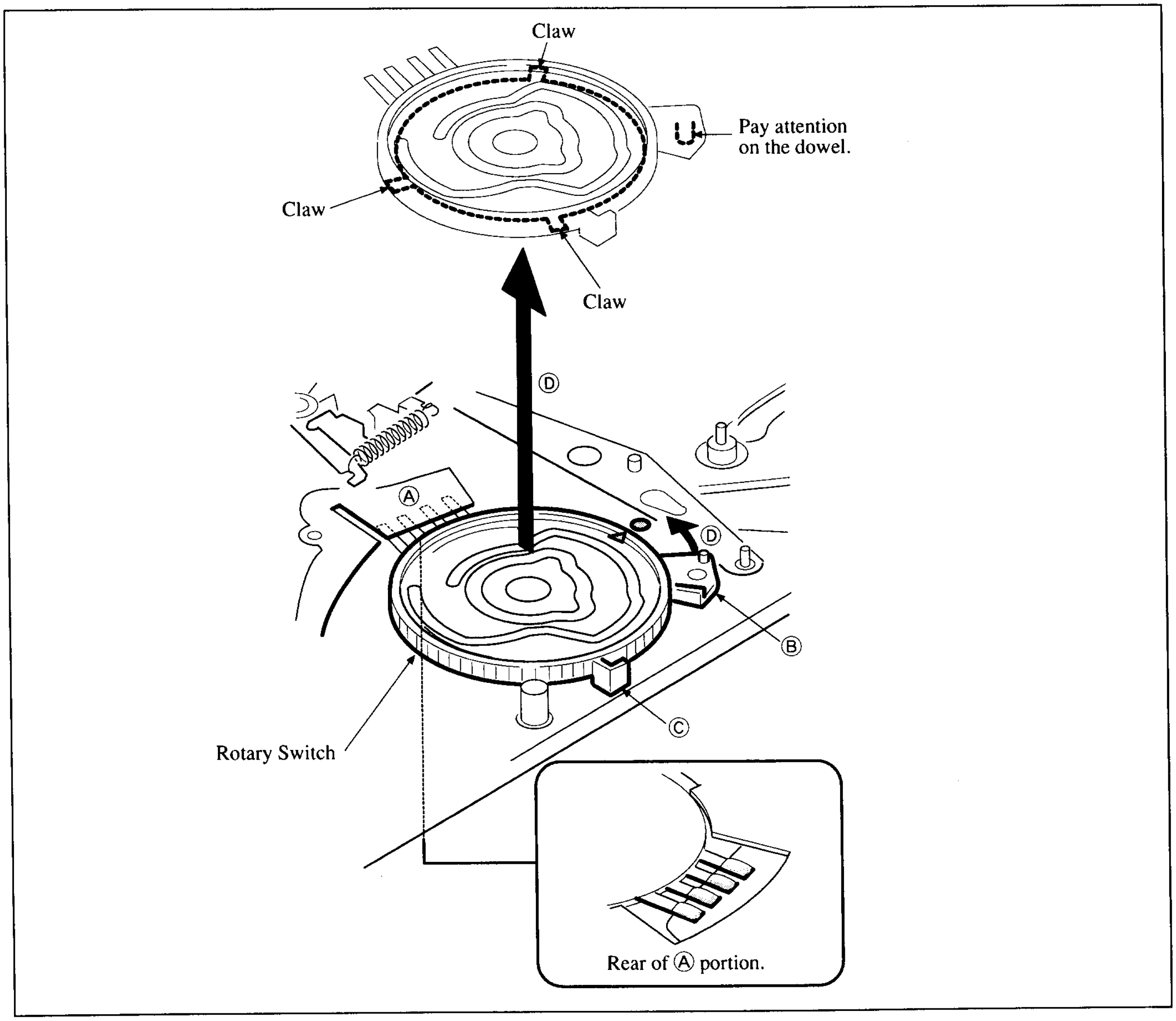


Fig. 22

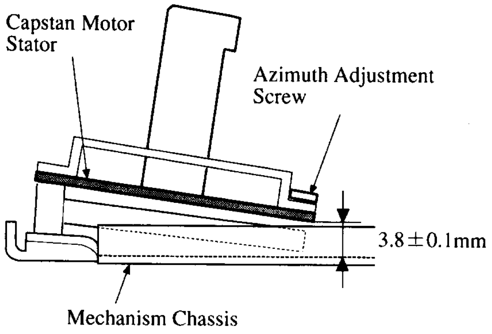
3-17. Capstan Motor (Refer to Fig. 23)

1. Disassembly Procedure

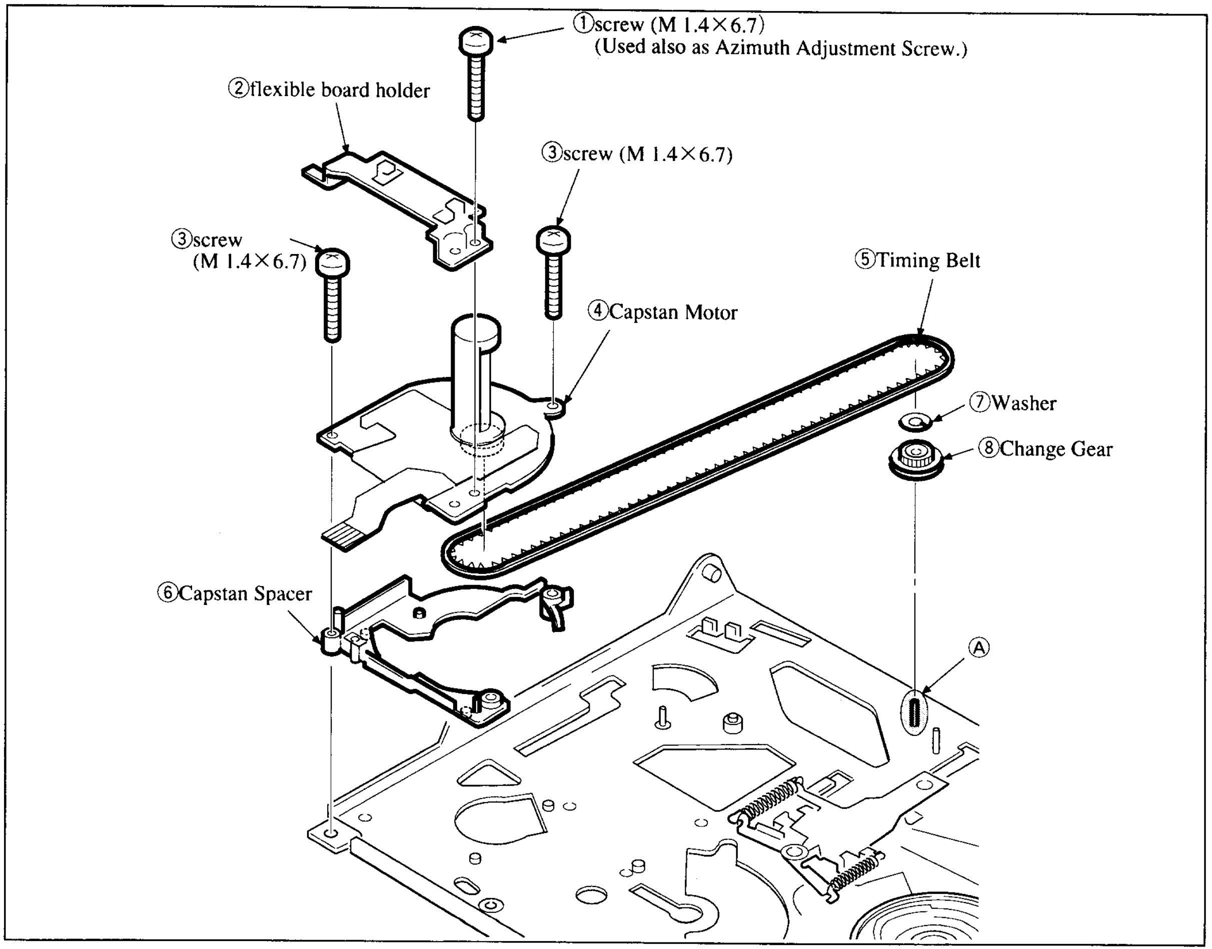
1) Remove the Cassette Compartment Block Assy referring to section 1-1.
2) Remove the HC Roller Block Assy referring to section 3-1.
3) Remove the Drum Assy referring to section 3-2.
4) Remove the Drum Base Block Assy referring to section 3-3.
5) Remove the Gooseneck Retainer and Gooseneck Gear Assy referring to section 3-4.
6) Remove the LS Chassis Block Assy referring to section 3-5.
7) Remove the DC Motor Assy referring to section 3-11.
8) Remove the Tension Regulator Plate 2, Relay Gear and M Slider Assy referring to section 3-12.
9) Remove the Pinch Press Plate referring to section 3-13.
10) Remove the screw (M 1.4×6.7) ① and remove the Flexible Board Holder ②.
11) Remove the two screws (M 1.4×6.7) ③ and remove the Capstan Motor ④, Timing Belt ⑤ and Capstan Spacer ⑥.
12) Remove the washer ⑦ and remove the Changer Gear ⑧.

2. Precautions During Re-Assembly

1) Confirm that the timing belt is not twisted.
2) Do not touch the capstan with bare hand.
3) Lubricate the mechanism chassis's Change Gear shaft Ⓐ.
4) After attaching the Capstan Motor, perform the capstan azimuth adjustment.



Capstan Motor Stator
Azimuth Adjustment Screw
3.8±0.1mm
Mechanism Chassis



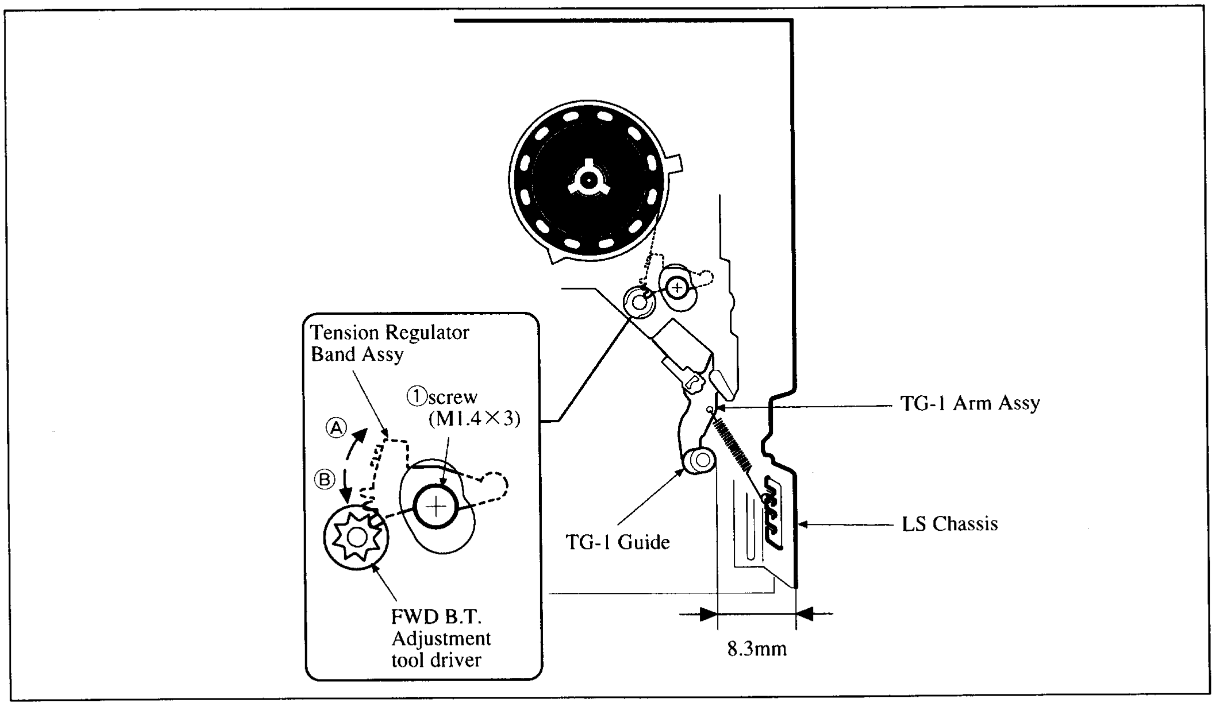
①screw (M 1.4×6.7)
(Used also as Azimuth Adjustment Screw.)
②flexible board holder
③screw (M 1.4×6.7)
③screw
(M 1.4×6.7)
⑤Timing Belt
④Capstan Motor
⑦Washer
⑧Change Gear
⑥Capstan Spacer
Ⓐ

Fig. 23

3-18. Tension Regulator Position Adjustment (Refer to Fig.24)

1. Adjustment Procedure

1) Insert a cassette Tape and run the Tape in PB mode.
2) While tape is running, confirm that the distance between the LS Chassis and TG-1 Guide's top flange is 8.3mm.
3) If not, proceed to step 4).
4) Loosen the screw ① (M 1.4×3).
5) If the TG-1 Guide is located inside the specified position, move position of the Tension Regulator Band Assy using the FWD B.T. Adjustment tool screwdriver (Ref. No. J-9) as shown in the direction of the arrow Ⓐ. If it is located outside, move it in the direction of the arrow Ⓑ.
6) Tighten the screw ① (M 1.4×3).



Tension Regulator Band Assy
①screw (M1.4×3)
Ⓐ
Ⓑ
FWD B.T. Adjustment tool driver
TG-1 Arm Assy
LS Chassis
TG-1 Guide
8.3mm

Fig.24

3-19. FWD Tape Hold-Back Tension Adjustment (Refer to Fig. 25)

1. Adjustment Procedure

1) Insert the torque measurement cassette to the machine.
2) Put the machine in the FWD mode. Confirm that the reading on the S side is in the range from 8.0 to 10.5 g•cm. If the reading is outside the specification range, make the following adjustments.
3) If the reading is higher than the specification, change the TG-1 Tension Spring to the side Ⓐ.
4) If the reading is lower than the specification, change the TG-1 Tension Spring to the side Ⓑ.

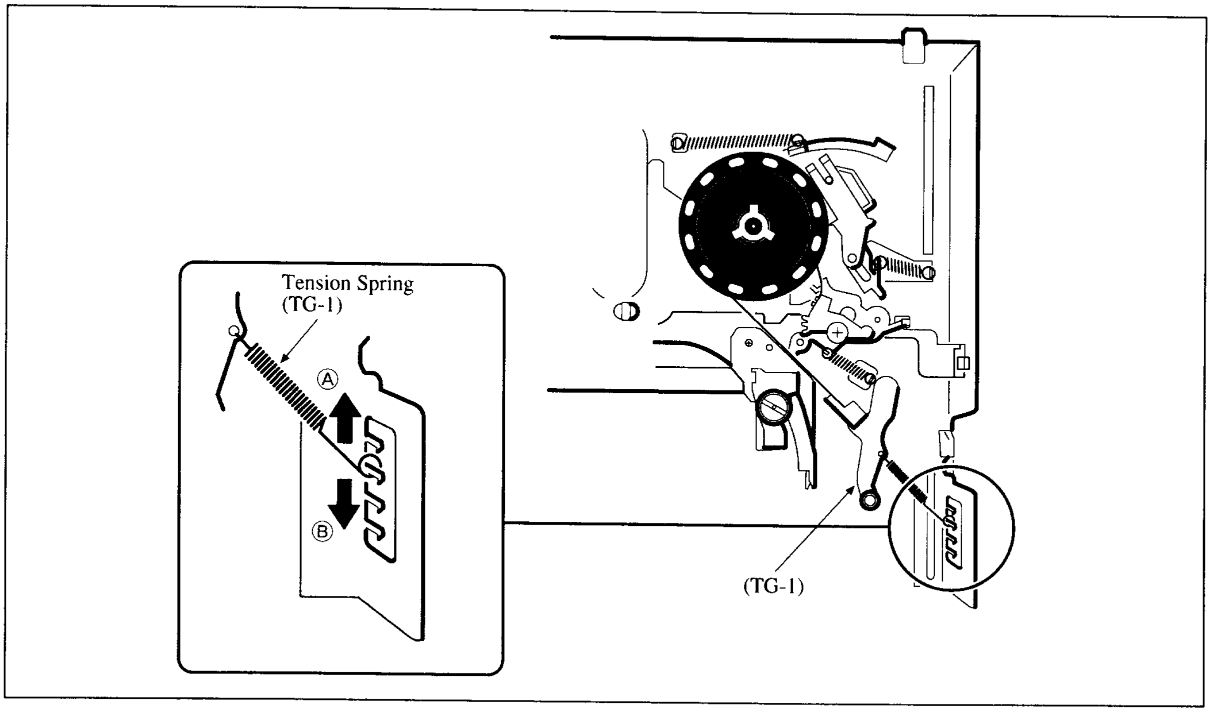


Fig. 25

4. TAPE PATH ADJUSTMENT

Purpose:	Adjusts the head linearity.
Adjustment Error:	Noise appears on top and bottom of display when playing back the tape recorded by other machines.

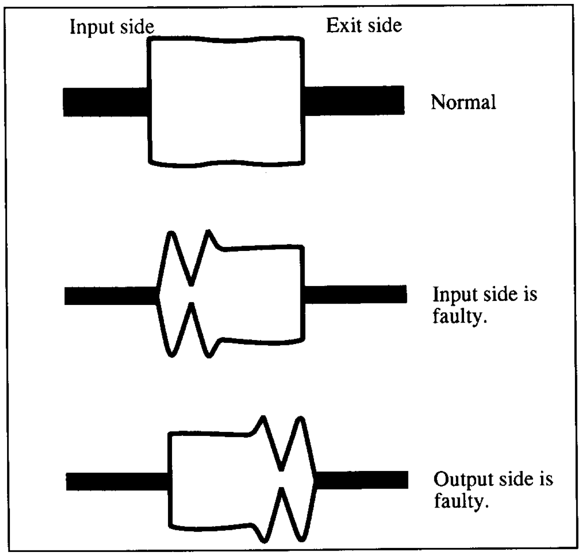


Fig. 26

4-1. Preparations for Adjustments

1) Clean the tape running surface (tape guide, drum, capstan, pinch roller).
2) Connect the adjustment remote commander to the REMOTE terminal (JACK block).
3) Establish the PATH mode using the adjustment remote commander (Track Shift mode)* to cancel auto tracking.
4) Connect an oscilloscope.
   CH1: Test connector PB RF terminal
   External trigger: Test connector PB SWP terminal
5) Playback the tracking alignment tape WR5-1NP (NTSC) or WR5-1CP (PAL) (Ref. No. J-6).
6) Check to see that RF waveform is flat at input and exit sides on oscilloscope.
   If it not flat, perform the following section 4-2 until it is flat.
7) After completing the adjustment, release the PATH mode (Track Shift mode).*.

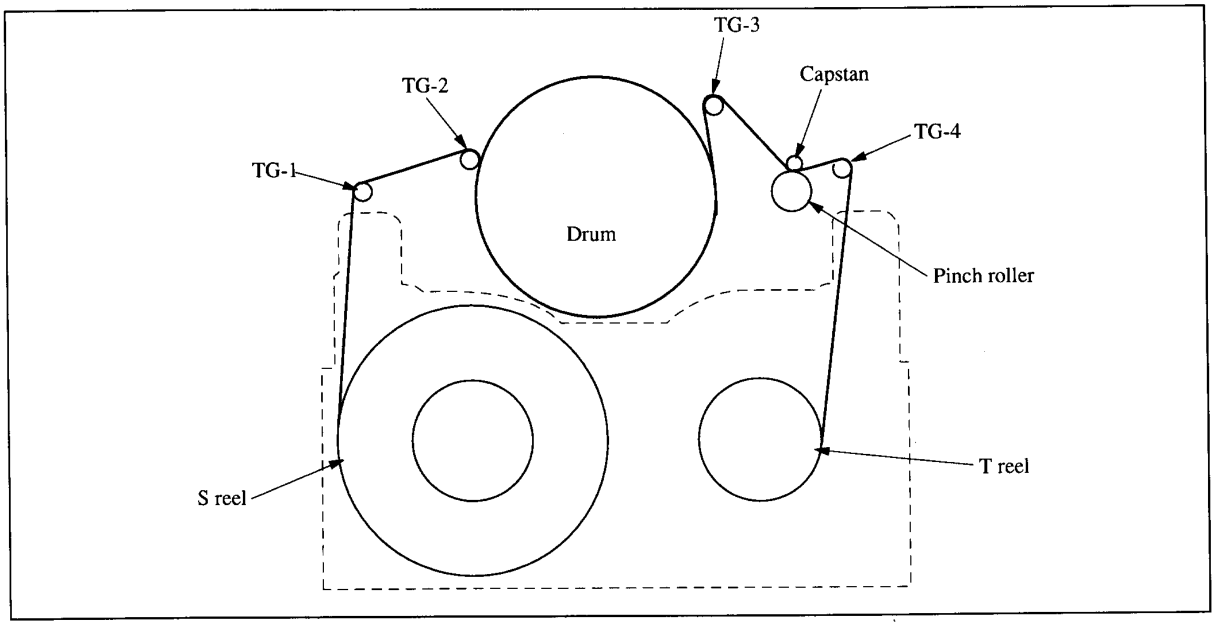


Fig. 27

* How to enter and exit the Track Shift mode. (In the case of CCD-TR420E/TR440E)

Entering the Track Shift mode

1. Select page : 6, address : 00 set data : 01 and press the PAUSE button.
2. Select page : 7, address : 01 set data : 03 and press the PAUSE button.

Exitting the Track Shift mode

1. Select page : 7, address : 01 set data : 00 and press the PAUSE button.
2. Select page : 6, address : 00 set data : 00 and press the PAUSE button.

4-2. Tracking Adjustment (Refer to Fig. 28.)

1) Playback the tracking alignment tape WR5-1NP (NTSC) or WR5-1CP (PAL) (Ref. No. J-6).
2) Adjust the tape guide No. 2 until the input side waveform becomes flat.
3) Adjust the tape guide No. 3 until the input side waveform becomes flat.

☆ Zenith adjustment screws for the TG-2 and TG-3 do not need to be adjusted.

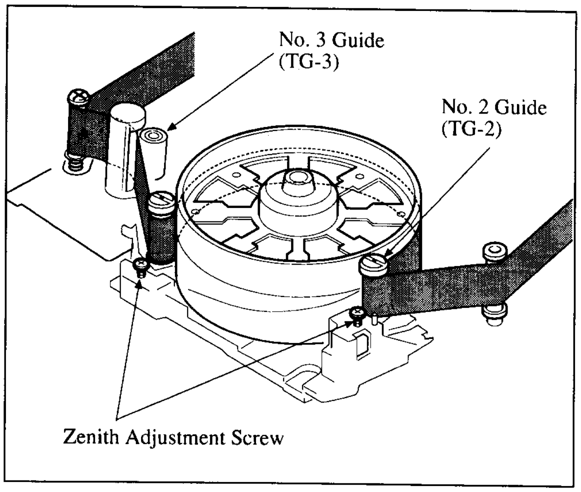


Fig. 28

4-3. No. 4 Guide (TG-4) Adjustment (Refer to Fig. 29.)

1) Playback a tape in REV mode.
2) Confirm that tape slack does not occur in between the guide No. 3 (TG-3) ① and Capstan ②. If tape slack is found, turn the height adjustment screw ④ of the Guide No. 4 (TG-4) ③ until tape slack is removed.
3) Playback a tape in FWD mode. Confirm that tape slack does not occur in between the guide No. 4 (TG-4) ③ and capstan ②. (Specification = 0.5 mm or less) If tape slack of more than 0.5 mm is found, turn the TG-4 nut ④ until the slack is 0.5 mm or less. Playback tape in REV mode and confirm that tape slack in between the guide No. 3 (TG-3) ① and capstan ② is 0.3 mm or less, the adjustment is complete.

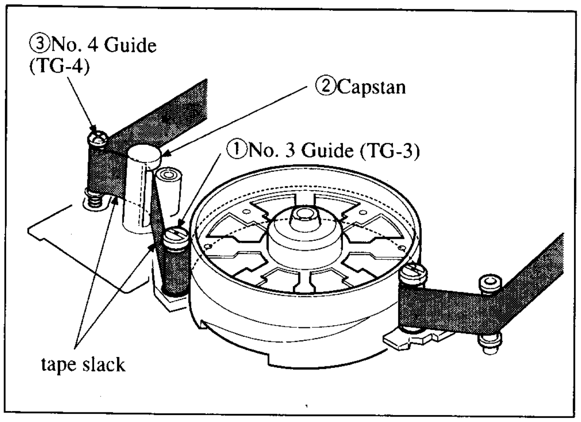


Fig. 29

4-4. CUE, REV Waveforms Check (Refer to Fig. 30.)

1) Playback the tracking alignment tape in REV mode.
   Confirm that pitches between the peaks of the waveform are equally spaced for 5 seconds or longer.
   The pitches are not equally spaced, perform sections "4-2. Tracking Adjustment" and section "4-3. No. 4 Guide Adjustment".
2) Playback the tracking alignment tape in CUE mode.
   Confirm that pitches between the peaks of the waveform are equally spaced for 5 seconds or longer.
   The pitches are not equally spaced, perform section "4-2. Tracking Adjustment".

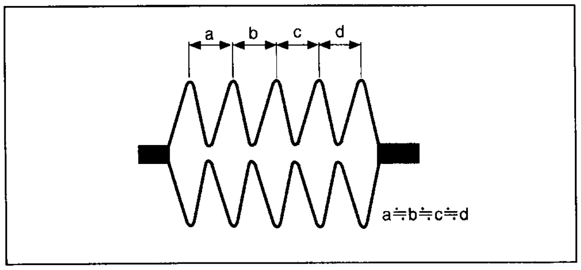


Fig. 30

4-5. Checks After Adjustments

4-5-1. Tracking Check

1) Confirm that amplitude of the RF waveform decreases to about 3/4 when the machine enters the PATH mode. (Refer to Fig. 31)
2) Confirm that the minimum amplitude (EMIN) of the RF waveform is 65 % or more of the maximum amplitude (EMAX). (Refer to Fig. 32)
3) Confirm that the RF waveform does not have too much fluctuation. (Refer to Fig. 33)

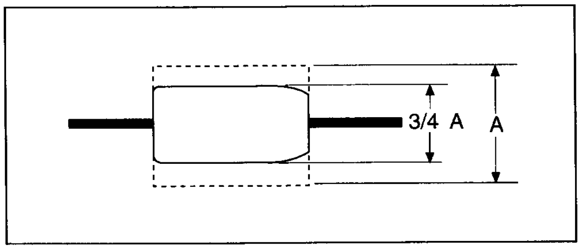


Fig. 31

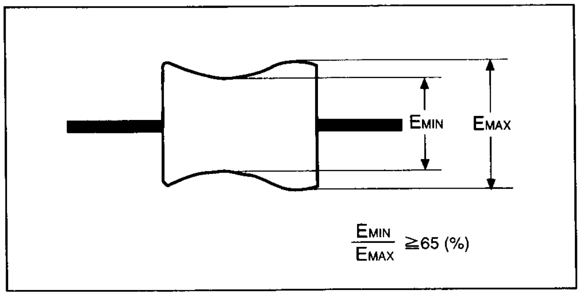


Fig. 32

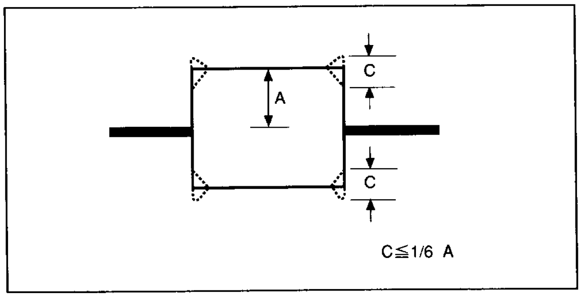


Fig. 33

4-5-2. Waveform Build-up Check (Refer to Fig. 34.)

1) Playback the tracking alignment tape.
2) Turn OFF the Track Shift mode.
3) Eject the tape once, insert and load the tape.
4) Start playing back the tape and confirm that the RF waveform builds up in three seconds with flat envelope. Confirm at this time that tape slack does not occur near pinch roller.
5) Playback the tape in CUE/REV and FF/REW modes respectively. Confirm that the RF waveform builds up in three seconds with flat envelope. Confirm at this time that tape slack does not occur near pinch roller.
6) Repeat the check items 3) to 5) again.

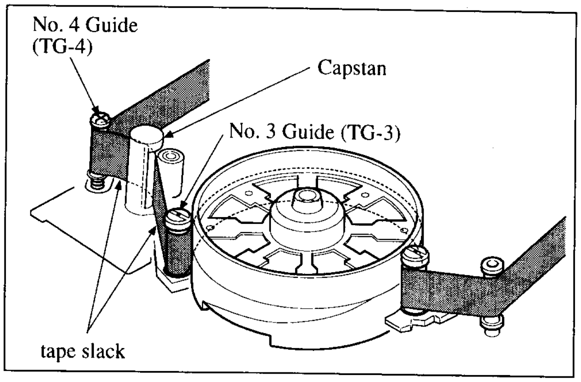


Fig. 34

4-5-3. Tape Pass Check (Refer to Fig. 35.)

1) Insert a thin video tape such as P6-120MP (NTSC) or P5-120MP (PAL). Playback the thin tape. Confirm that there is no clearance or curl of 0.3 mm or more at the following points: Upper flange of guide No. 2, upper flange of guide No. 3, upper and lower flanges of guide No. 4.
2) Confirm that there is no clearance or curl of 0.3 mm or more at each tape guide when the FF button is pressed from the playback mode to enter the CUE mode, and when the REW button is pressed from the playback mode to enter the REV mode.

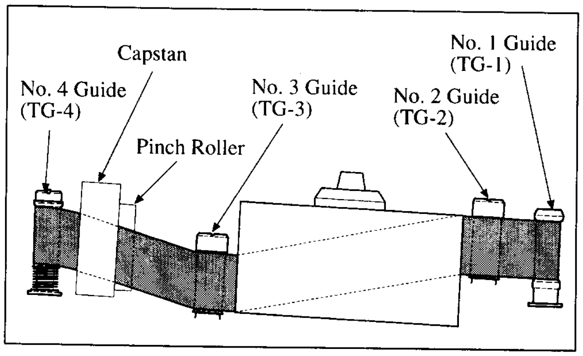
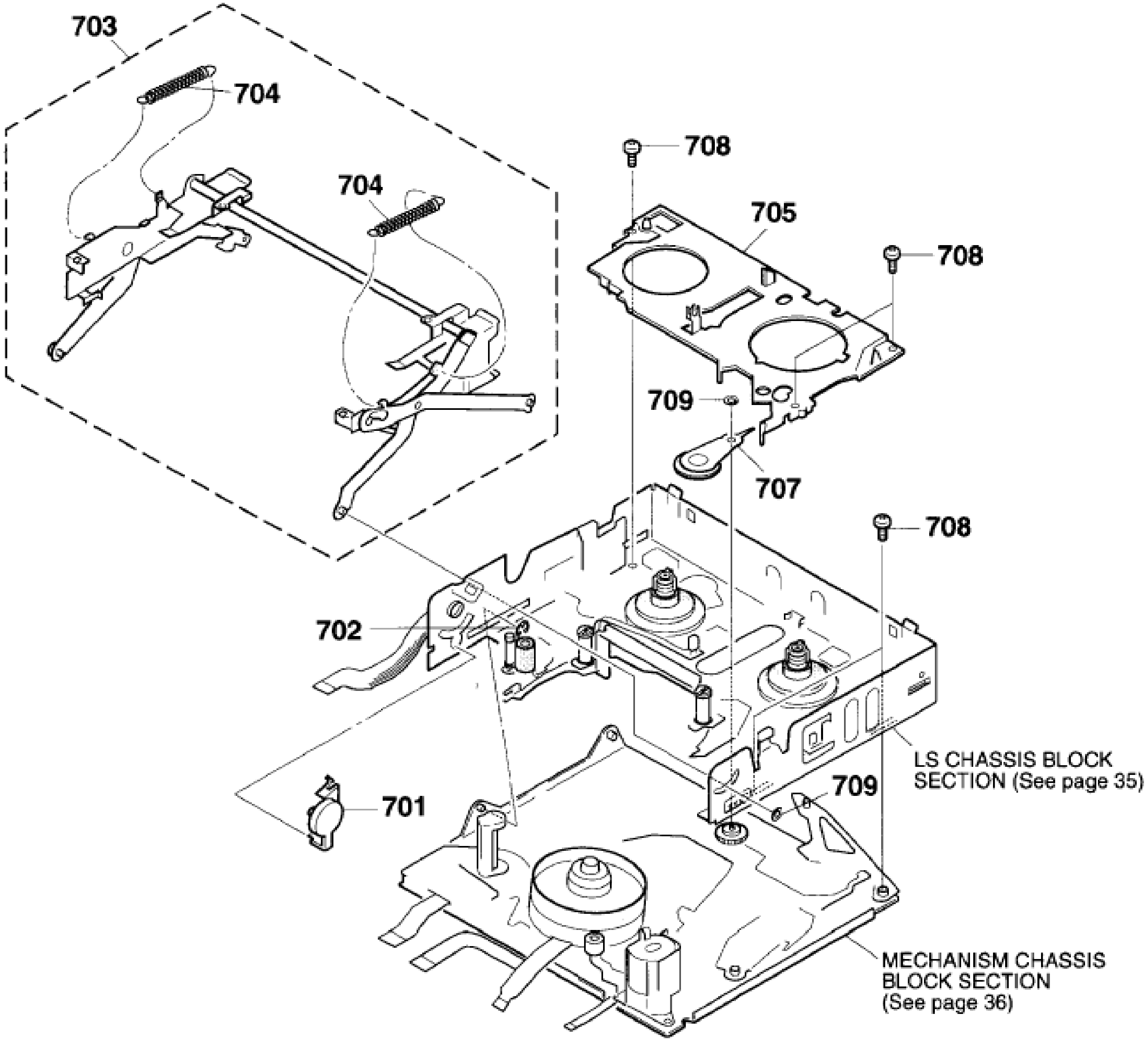


Fig. 35

5-1. Cassette Compartment Block Section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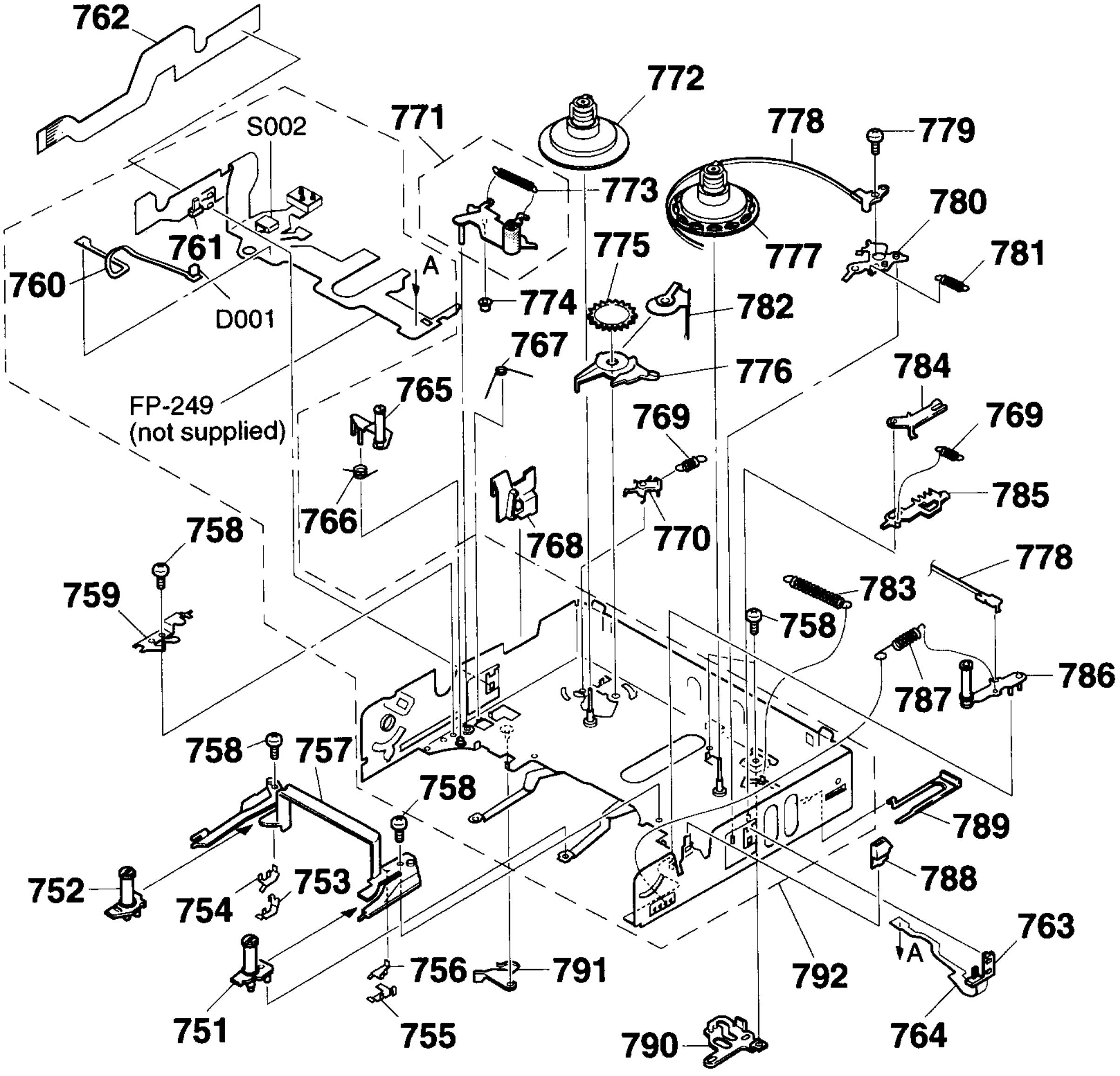
LS CHASSIS BLOCK SECTION (See page 35)
MECHANISM CHASSIS BLOCK SECTION (See page 36)

5-2. LS Chassis Block Section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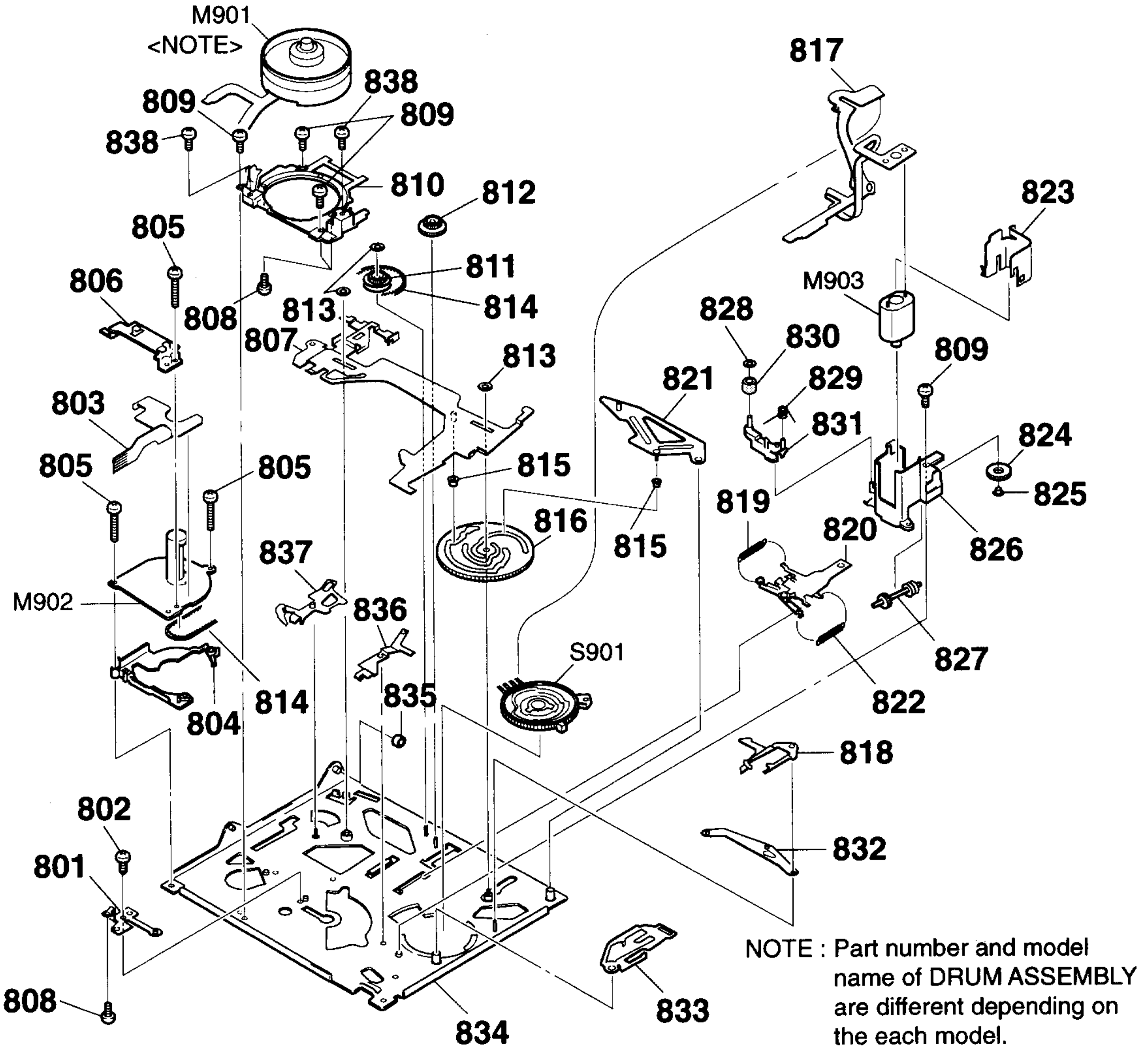
5-3. Mechanism Chassis Block Section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NOTE : Part number and model name of DRUM ASSEMBLY are different depending on the each model.